fueloil & oil heat

JULY
1959

★ ★ ★
EDITION

37 Years devoted to Progress in Oilheating and Airconditioning

Propose new ✱ Organization

Fueloil Committee outlines Project

Why We do ✱ burner Service

Dalton aims to keep Customers happy

Nozzle ✱ Coking

Socony Mobil Study explores Causes

API ✱ Centennial Materials

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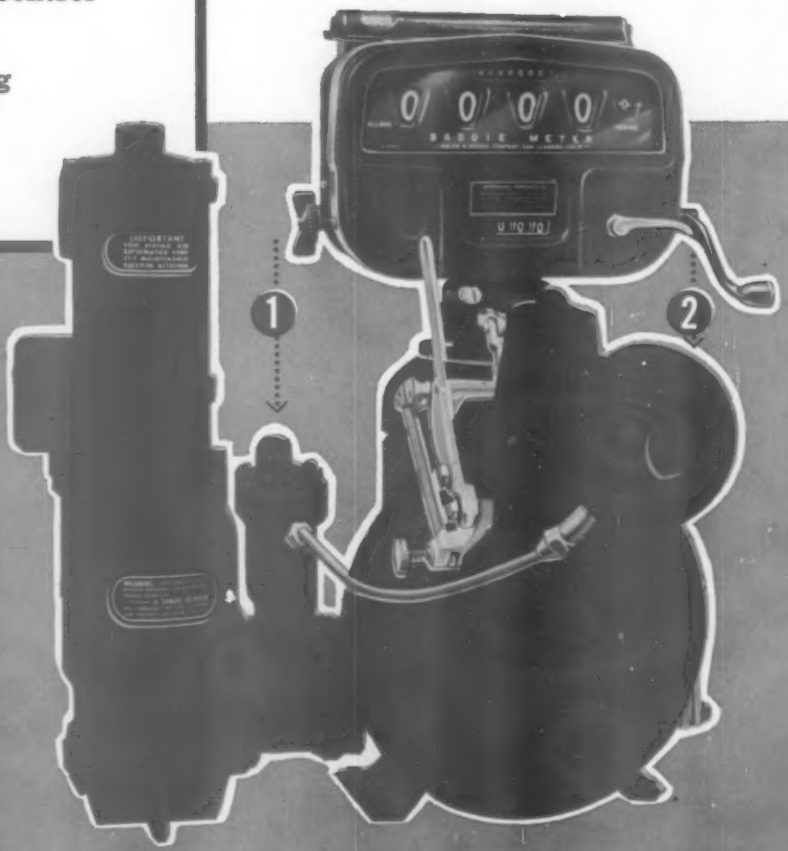
-to Fast, Accurate Fuel Deliveries

-with

1. **Positive Air Control System and**
2. **Free Opening Outlet Valve**

For high speed fuel oil deliveries (up to 120 GPM) Brodie has developed high velocity *BiRotor* tank truck metering that makes possible accurate measurement at high flow rates. This is accomplished through the combination of: (1) New Brodie Air Control System; (2) Brodie balanced, free opening outlet valve; (3) in conjunction with full capacity Brodie *BiRotor* Meters. They said it couldn't be done – but Brodie did it. 909



1 Brodie Air Control prevents the entrance of air into meter at high rates of flow with no restriction under normal operating conditions. Does not depend on liquid level in air eliminator.

2 Brodie Differential Check Valve closes tight when air enters system. It has far less restriction than a spring loaded back pressure check valve.

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BiRotor METERS

REPRESENTATIVES WITH STOCKS AND SERVICE FACILITIES IN ALL PRINCIPAL CITIES

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Trouble-free starts are taken for granted by users of all kinds of modern equipment so that *failure* to start does draw attention. Help keep your oil burners from being this kind of attention-getter—specify Sundstrand fuel units. For example, in high-lift installations, Sundstrand two-stage units are self-priming, even after the tank has been dry. Laboratory and field tests repeatedly prove Sundstrand's margin of superiority. Because the shaft terminates within the first stage pumping members, the end plate positively seals these members, assuring automatic air purging. Starts are cleaner, too, with less chance of firing trouble, because the hydraulically balanced valve and efficient shutoff keep the nozzle dry between firings.

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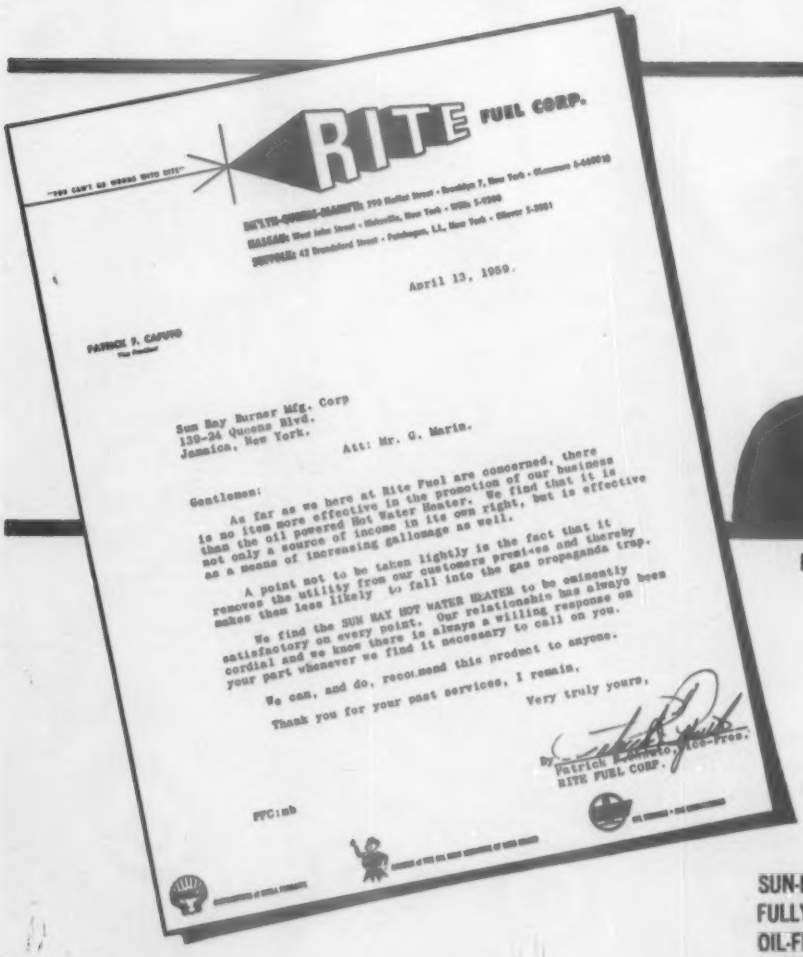

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April 13, 1959.

PATRICK F. CAPUTO
Vice President

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Att: Mr. G. Marin.

Gentlemen:

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A point not to be taken lightly is the fact that it removes the utility from our customers premises and thereby makes them less likely to fall into the gas propaganda trap.

We find the SUN RAY HOT WATER HEATER to be eminently satisfactory on every point. Our relationship has always been cordial and we know there is always a willing response on your part whenever we find it necessary to call on you.

We can, and do, recommend this product to anyone.

Thank you for your past services, I remain,

Very truly yours,

By Patrick F. Caputo, Vice-Pres.
RITE FUEL CORP.

PFC:mb

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FULLY AUTOMATIC
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WATER HEATER

- 4½ times the recovery rate of gas water heaters
- 8½ times the recovery rate of electric water heaters

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COPPER MODELS—30, 45 and 65 gallon sizes

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JULY fueloil & oilheat 1959

VOLUME 18 NUMBER 7

Editorial, circulation and advertising Office: 2 West 45th St., New York 36, N. Y.

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Among other things . . .

Two significant reports were made by the Fueloil Committee of the American Petroleum Institute at Des Moines during the organization's Division of Marketing meeting. Because of the importance of both topics and the interest shown in the projects discussed, the resolutions covering both are reproduced almost in their entirety. The report begins on page 45.

There's also a brief round-up of activity during the 1959 Biennial Eastern Exposition of Oil Heat and Air Conditioning, held in Boston. The program included dealer management clinics, sponsored by OHI's Distribution Division. A summary of the accounting and credit portion of the program appears under the title, "Boston plays Host," page 49.

Cover photo: A scene during an oilburner class at the Massachusetts Trades School shows young men in various phases of training. See story, page 58.

THE OILHEATING INDUSTRY needs a gimmick. Call it a tag, a handle or some kind of visual emblem or designation that we can build with the public to convey something fine. The gas industry does pretty well with its blue flame symbol which builds a subconscious acceptance of cleanliness, probably because you put bluing into the washer to make clothes white.

The electrical industry glorifies the all-electric home when it includes electric heating with a gold medallion symbol set in the cement of the front walk or steps. Quite a number of the promotional programs working with the National Fueloil Council are using a cartoon character called "Little Bill," who is really quite a natural because of that name. We hope that "Little Bill" is spread out over the country into a lot more places. He does not, however, take the place of a symbol or medallion that could be designed in some way to convey excellence.

In an office file we just came across some of the material developed for the national advertising campaign—our industry's first—back in 1928. At that time the Oil Heating Institute, which was a separate organization apart from the then American Oilburner Association, raised money from major oil companies and manufacturers in the industry, starting an excellent advertising program that faded with the market crash of 1929. Full page ads were run in the *Saturday Evening Post* and other prominent magazines.

At that time, they were using on all literature and advertising layout a medallion in the form of a sunburst with the slogan: "Oil heat—as benevolent as sunshine."

We have probably made too little use of the sunshine association with comfort and warmth in the public mind. Perhaps, we should again think in that direction with a more modern slogan.

How about something like "Bring sunshine indoors with oil heat." In any event, it is time to think it over. We do need a visual designation for our fine heating.

IT WAS at the Boston exposition that American Radiator and Standard Sanitary Corp. called in two dozen large eastern distributors to meet with marketing officials and discuss a new line of oilheating equipment. Two publication men were there, including the editor.

William Baker, sales vice president, introduced the session with a little of his company's philosophy on the economics of future heating. He pointed out that his company is proud to present seven new oilfired furnace units. He recognized that some manufacturers and other individuals in the heating field are raising eyebrows over anyone making such a large investment in tooling for a new oilfired line. Some of them believe that oilheating has passed its peak of growth. Mr. Baker said that on the contrary his company's economists have been projecting the future of heating in general and they find oil heat playing a very conspicuous part in the firm's anticipated volume.

For a company of that prominence, the statement is quite significant. We have always felt that way about it and so have most oil refiners. But it is true that some heating manufacturers have shown considerable concern. The recovery this year from last in oil heat installations is significant.

AT THE EXCELSIOR SPRINGS meeting of the API Fueloil Committee in late May, Tom Scott of Boston, told of the work of an organization called Oil Heat Associates. This enterprise, designed to speed up research on oilburning equipment, is an outgrowth of the API meeting in the spring of 1958 when Calvin MacCracken stimulated the Fueloil Committee to move in the direction of equipment research culminating in the present program at Battelle Memorial Institute.

Entirely apart from that effort, Oil Heat Associates was formed by a number of large eastern and Canadian fueloil distributors as a private enterprise built around MacCracken and his work. Prominent in the venture, besides Tom Scott of Buckley and Scott, are William Briggs, Valley Oil, Middletown, Conn.; William Kenny, Jr., Meenan Oil Co., New York; Leon Hess, Hess, Inc., Perth Amboy, N. J.; and Gordon McMehen, Liquifuels Ltd., Toronto. There are others whose names don't come to mind at the moment.

The goal is to raise and invest $100,000 a year for three years and Scott writes that they are half way to the goal. This is an imaginative project with good possibilities of worthwhile development.

EVERY NOW and then some convention speaker injects a humorous line that relieves the pressure of a long session. At the spring OHI convention in Seattle, Bud Grenier of Bellingham was discussing management responsibilities in connection with some of our industry problems. Pointing out how hard it is for some men to make decisions he gives a list of escape routes when a boss is being backed to the wall for a decision that shouldn't be allowed to wait.

This is his formula in 16 steps:

1) Take flight into detail. 2) Counsel indefinite delay of action. 3) Delegate the problem to a committee. 4) Look for the answer in the book. 5) Induce someone higher than you to commit himself on how to handle the problem. 6) Use double-talk. 7) Delegate the problem to a subordinate.

8) Indicate that all problems must be categorically numbered and handled. 9) Have a special study made. 10) Be called out of town to visit a sick friend. 11) Call in some kind of expert to be sure we are on solid ground. 12) Categorically deny than any problem exists.

13) Take flight into illness. 14) Take flight into the bottle. 15) Simply state that the problem belongs to someone else. 16) Simply put on one's hat and go home.

Bob Gray

ONLY THE UNIFIL® SYSTEM IS BACKED BY SCULLY'S 20 YEARS OF EXPERIENCE WITH TIGHT CONNECTIONS

Note that the non-ferrous* UNIFIL Connector on the discharge end of the nozzle incorporates its own wrench. No need for the driver to drop the nozzle. Note that the mating threads and the internal surfaces are always protected against damage or wear from rough handling or dropping. Compare the compactness, the ability to resist abuse of the UNIFIL Nozzle Connector with the inherent weaknesses in any connector designed like a spout. How many spouts have you replaced?

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The weatherproof UNIFIL Cap always goes on and off quickly and easily. The design of the UNIFIL Cap eliminates the necessity of a gasket and its constant replacement. The etched and enameled aluminum identification disc, carrying your distinctive message, protects against misdelivery and promotes your company good will.

ALL-WEATHER CAP

The lower photograph shows one type of UNIFIL Adaptor — one of over 20 types which enable every fill pipe entry to be the same. Adaptors are also available for wall mounted and ground level flush fills.

*Underwriters' Laboratories', Inc., states that "Nozzle tubes on listed hose nozzle valves should be made of non-ferrous metal . ."

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fueloil & oilheat

by Jim Collins

WASHINGTON—It is clear now that the Administration firmly intends to hold tight the reins on oil imports—at least until oil prices are stabilized, and clearly on the up-trend. But, an exception to this will be caution in holding down imports of residual fuel-oil. Washington officials do not want to be blamed in any way if residual supplies should turn tight, and prices jump, along the East Coast, particularly New England, next winter.

For the period July-December, the total import level (not counting imports from Canada, expected to average about 100,000 barrels daily) has been set at 1,446,522 barrels daily, including Puerto Rico, or up about 30,000 barrels daily from the initial allocation period March-June. A reduction of about 6% was made in the area East of the Rockies (Districts 1-4) and an increase of about 15% on the West Coast where domestic supplies will be short of demands by 265,000 barrels daily. The allocations (not including residual) total 754,650 barrels daily in Districts 1-4 and 239,629 on the West Coast. Residual quotas in the two areas, respectively, add up to 365,000 barrels daily and 3,866 barrels daily. The allowable imports of residual East of the Rockies actually is 35,000 barrels daily higher than anticipated demands, to raise stocks above levels at the end of June, so that they will more nearly approximate 1957 closing stocks (33.5 million barrels).

This amounts to a "bow" to Venezuela as well as a hedge against shortages, and so far the coal industry has not shown much excitement at the increase. However, the Independent Petroleum Association of America (IPAA) has suggested that a change be made in the program, to permit crude oil importers the option of importing residual, on a barrel-for-barrel basis, and having it charged against their crude quota. This, IPAA says, would guarantee sufficient supplies at "reasonable prices" and would obviate the need for government to keep an eye constantly on supplies of residual and to make periodic changes in import levels to meet changing requirement conditions.

Coal Pushes 'End Use' Program

Meanwhile, the coal industry is setting up a big publicity program, in its battle against "dumping" of natural gas for use under boilers by industrial consumers. Details are not available yet, but it will be aimed at convincing homeowners that they are helping to pay the bills of industrial consumers, according to the National Coal Association's Committee on Public Relations, at NCA's annual meeting here two weeks ago.

'Realistic' Energy Policy Urged

At the same meeting, William Connole, Federal Power commissioner, called for an "impartial" government-industry probe of the energy picture, "dominated" by the government, to see "where our present policy is taking us," with any changes found needed made by legislation. However, Connole emphasized that such changes should not "dictate what fuel will be used or how much."

Energy Trends Analyzed

John Scott, Socony-Mobil, told the NCA that the next 5 years will be "good ones" for energy growth, rising about 3.4% a year. Oil demand will rise about 3% each year, he estimated, and for gas about 5.5%. Drop in coal consumption "is ending" now, he said. Coal's share of the market will continue declining, although slightly, but actually consumption will rise 1.4% a year, against an annual loss over the past ten years of 2.9%.

Coal Helped in Congress

Meanwhile, legislation is now on its way through Congress, establishing a new and independent "Coal Research-Development Commission," to stimulate increased use of coal, backed with several millions of dollars. If coal is to get more than its competitive share of the market, the only place the increase can come from is oil and gas. Workings of this body, once it is set up, will be watched carefully for their effect in the fuel market. It also will, undoubtedly, become the focal point for coal's efforts to capture more of the industrial energy market.

Pipeline 'Divorcement' Proposed

The House anti-trust subcommittee, after a bitter partisan battle, has issued its long-awaited report on the oil pipeline consent decree under the Elkins Act, with four democrats urging, in effect, that major companies be barred from receiving dividends from their pipelines, and the republicans opposing the idea. Chairman Celler (D, N. Y.) has now put in a bill to accomplish this, but it will probably not even get a hearing by the House Commerce Committee. Celler's bill, also, was not helped by the Supreme Court's decision in the Arapahoe pipeline case, upholding the payment of dividends to shipper-owners based on total valuation—not just equity investment, as urged by Celler. However, the court said it was just interpreting the decree—not passing on the merits of this argument. Celler thinks a law should be passed limiting dividends or that the Justice Department should go into court, seeking modification of the 1941 decree.

High Runs Worry Officials

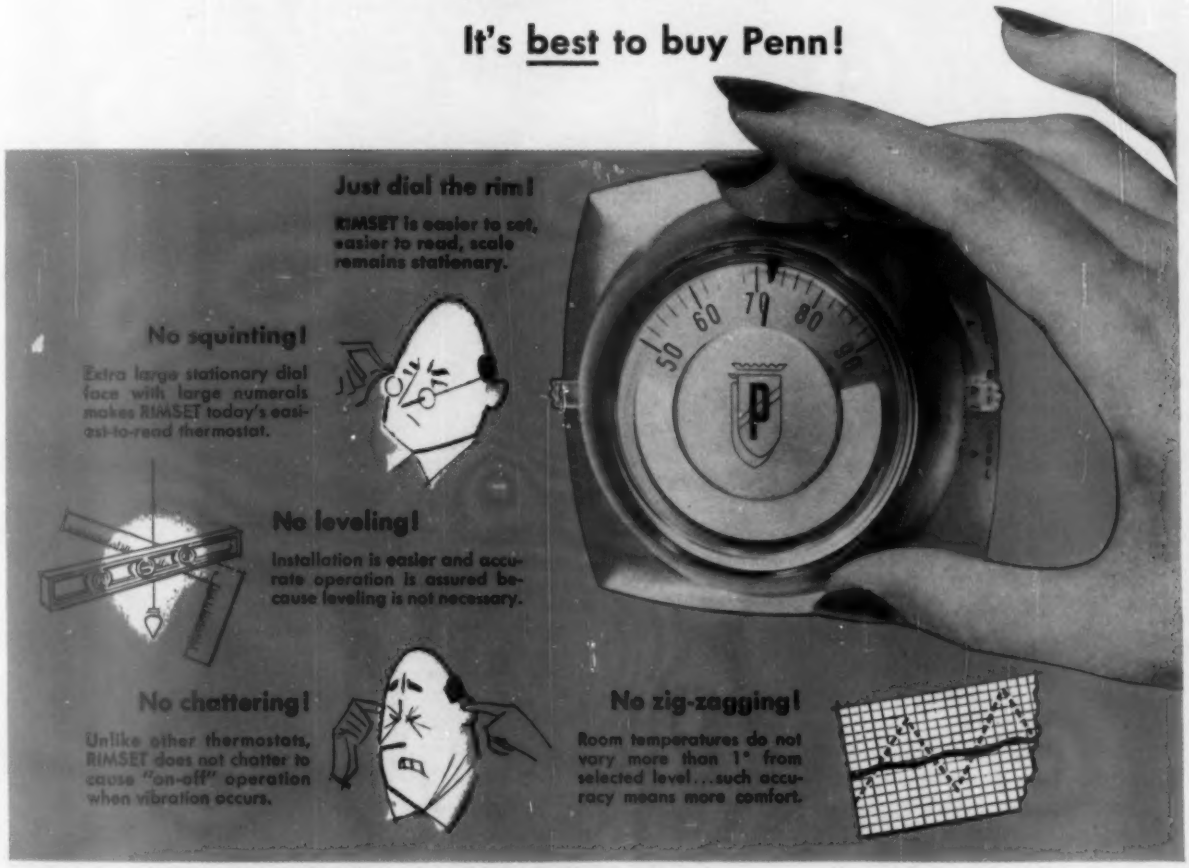
Federal officials, as well as state oil officials, are wondering what is behind the high rate of refinery runs far above market demands, resulting in excessive gasoline stocks during the period when motor fuel consumption is nearing a peak. Key to this situation, apparently, is the eagerness of major refiners, as well as the independents, to win a bigger share of the market, individually. Result is a continuation of soft prices, despite rising demands now and expected for fuel oil next winter. Some companies blame the use of refinery-inputs as a base for setting oil import quotas, contending this encourages high runs. Officials here say this is not so.

COMPARE

...only PENN'S RIMSET has all these thermostat features

Take a few minutes to compare room thermostats... you'll discover *only* the Penn RIMSET brings you *all* the selling advantages shown below. In addition, it has beautiful, distinctive styling that's at home in any home. And, RIMSET is so versatile! Various subbases are available for 12 different heating and cooling applications. Thus, if cooling is added later, simply change the subbase and use the *same* thermostat. So... take a few minutes to compare and you, too, will discover...

It's best to buy Penn!


Just dial the rim!
RIMSET is easier to set, easier to read, scale remains stationary.
No squinting!
Extra large stationary dial face with large numerals makes RIMSET today's easi-est-to-read thermostat.
No leveling!
Installation is easier and accurate operation is assured because leveling is not necessary.
No chattering!
Unlike other thermostats, RIMSET does not chatter to cause "on-off" operation when vibration occurs.
No zig-zagging!
Room temperatures do not vary more than 1° from selected level...such accuracy means more comfort.
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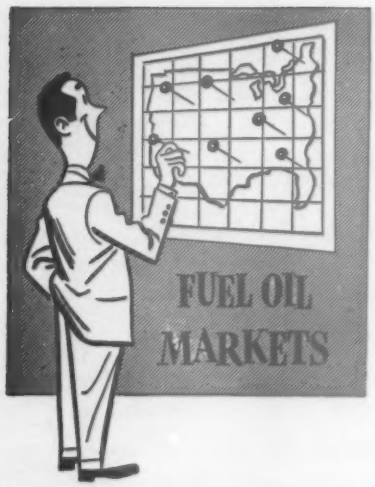


No. 2 Heating Oil (Including No. 3 & PS200)

Price per gallon as of June 15, 1959

	Tank Car	Tank Wagon		Tank Car	Tank Wagon
Portland, Me.	10.3(A)	14.9	Charleston, S. C.	10.4(A)	13.6
Boston	10.2(A)	14.7	Chicago	10.00*	14.1
Providence	10.2(A)	14.4	Detroit	11.25*	15.6
Hartford	10.45(A)	14.5	Cleveland	11.6*	15.6
New Haven	10.1(A)	14.6	Minneapolis	10.429	14.7
Syracuse	11.3(B)	14.9	St. Louis	10.5*	15.4
Albany	10.3(A)	14.3	Indianapolis	10.39*	15.4
New York	10.1(A)	14.6	Milwaukee	10.75*	14.9
Newark	10.1(A)	14.1	Des Moines	11.05	15.2
Philadelphia	10.1(A)	14.2	San Francisco	12.05*	14.8
Baltimore	10.1(A)	14.4	Portland, Ore.	12.10*	15.1
Wilmington, N. C.	10.4(A)	14.0	Seattle	12.20*	15.2
Washington	10.4(A)	14.7	Spokane	13.80*	16.8
Richmond	10.5(A)	14.1	Los Angeles	11.55*	14.3

Tank wagon prices shown are for maximum one-time delivery discounts.
*Delivered.
(A) Price subject to .50¢ vol. summer discount.
(B) Price subject to .40¢ vol. summer discount.

THE FINAL degree-day table for the 1958-1959 season showed an extra warm month of May and the total season almost coming back to normal. On the East Coast generally, the weighted average of degree-days showed the season to be 2.5% colder than normal and 4.7% colder than last season.

The Midwest on a weighted average was 1.1% colder than normal and 3.9% colder than last season. The Pacific Northwest, based only on the cities of Portland and Seattle, was about 6.3% warmer than normal—which was a little hard on the fueloil distributors following an extra mild winter last year.

There's inclined to be some argument, however, among consumers who say they burned considerably more oil or gas than last season. Perhaps there was considerably more wind, or it may be that light snow fall in eastern states left the houses more exposed.

Fueloil prices are pretty generally down since last month with most cities either .5¢ or .6¢ below the May figure. This is a reflection of the high primary stocks as shown in the table which were 12.7% above 1958 on comparable June dates.

Just why these stocks are high goes beyond the efforts of this column, but it is pretty clear that we are in our summer economic slump and we can reasonably expect the values to rise again as we get into the fall season.

As an interesting sidelight, gasoline stocks are extra high and causing a lot of price wars and deep concessions. The ironic part is that gasoline has surplus conditions at the season peak while at least the fueloil side has an excuse to be high because nobody is buying it. Local fueloil marketers are constantly urging that the oil industry find some way to reach an annual uniform price level for fueloil which obviously is impossible under free market conditions. They point to the uniform gas rates but of course they are government regulated.

DEGREE DAY TABLE

ONE MONTH ONLY					SEASON TO DATE			
	May		Percent		Sept. thru May			Percent
Normal	1958	1959	Change*		Normal	1958	1959	Change*
246	322	220	— 10.6	Albany AP	6888	6554	7136	+ 3.6
20	29	10	— 50.0	Atlanta AP	2826	3314	2797	— 1.1
115	107	67	— 41.7	Baltimore AP	4782	4030†	4876	+ 0.1
236	262	142	— 39.8	Boston AP	5742	5356	5870	+ 2.2
315	343	216	— 31.4	Buffalo AP	6720	6497	6804	+ 1.2
29	28	13	— 55.2	Charlotte NC AP	3205	3622	3245	+ 1.2
229	149	114	— 50.2	Chicago AP	6252	5651	6249	— 0.1
108	67	70	— 35.2	Cincinnati CO	4532	4958	4895	+ 8.0
223	218	133	— 40.4	Cleveland AP	5950	5868	5938	— 0.2
0	6	0	0	Dallas AP	2272	2590	2444	+ 7.6
286	138	273	— 4.5	Denver AP	6051	5666	5805	— 4.1
201	98	140	— 30.3	Des Moines AP	6384	6512	6504	+ 1.9
251	228	159	— 36.7	Detroit AP	6336	6150	6423	+ 1.4
248	252	164	— 33.9	Grand Rapids CO	6396	6775	7044	+ 10.1
201	281	180	— 10.4	Hartford AP	6094	6101	6552	+ 7.5
399	167	540	+ 35.3	Helena AP	7951	7136	7944	— 0.1
0	0	0	0	Houston AP	1388	1631	1469	+ 5.8
176	141	104	— 40.9	Indianapolis AP	5581	5824	5760	+ 3.2
111	52	56	— 49.5	Kansas City AP	4880	5006	4613	— 5.5
68	13	23	— 66.2	Los Angeles CO	1432	891	726	— 49.3
94	59	51	— 45.7	Louisville AP	4434	4727	4408	— 0.6
351	291	215	— 38.7	Milwaukee AP	6944	7150	7402	+ 6.6
259	169	192	— 25.9	Minneapolis AP	7748	7043	7566	— 2.3
0	0	0	0	New Orleans CO	1175	1555	1298	+ 10.5
153	205	129	— 15.7	New York CO	5032	4909	5110	+ 1.5
175	63	136	— 22.3	Omaha AP	6123	6061	6083	— 0.6
93	120	70	— 24.7	Philadelphia CO	4523	4977‡	4722	+ 4.4
137	138	95	— 30.7	Pittsburgh CO	5035	5361	5158	+ 2.4
394	430	295	— 25.1	Portland, Me. AP	7493	6785	7685	+ 2.6
199	98	259	+ 30.1	Portland, Ore. CO	4046	3459	3731	— 7.8
258	309	180	— 30.2	Providence AP	6041	5669	6073	+ 0.5
81	82	49	— 39.5	Roanoke, Va. AP	4152	4631	4094	— 1.4
94	59	63	— 33.0	St. Louis CO	4462	4795	4744	+ 6.3
233	106	296	+ 27.0	Salt Lake City AP	5785	5512	5263	— 9.0
248	171	181‡	— 27.0	San Francisco CO	2523	2169	1831‡	— 27.4
499	595	436	— 12.6	Sault Ste. Marie AP	9016	8392	9231	+ 2.4
246	116	280	+ 13.8	Seattle CO	4237	3524	3998	— 5.6
245	233	136	— 44.5	Toledo AP	6322	6299	6477	+ 2.4
87	66	39	— 55.2	Washington AP	4337	4443	4168	— 3.9

* Compared with normal. † City Office. ‡ Airport Office.

Distillate Fueloils

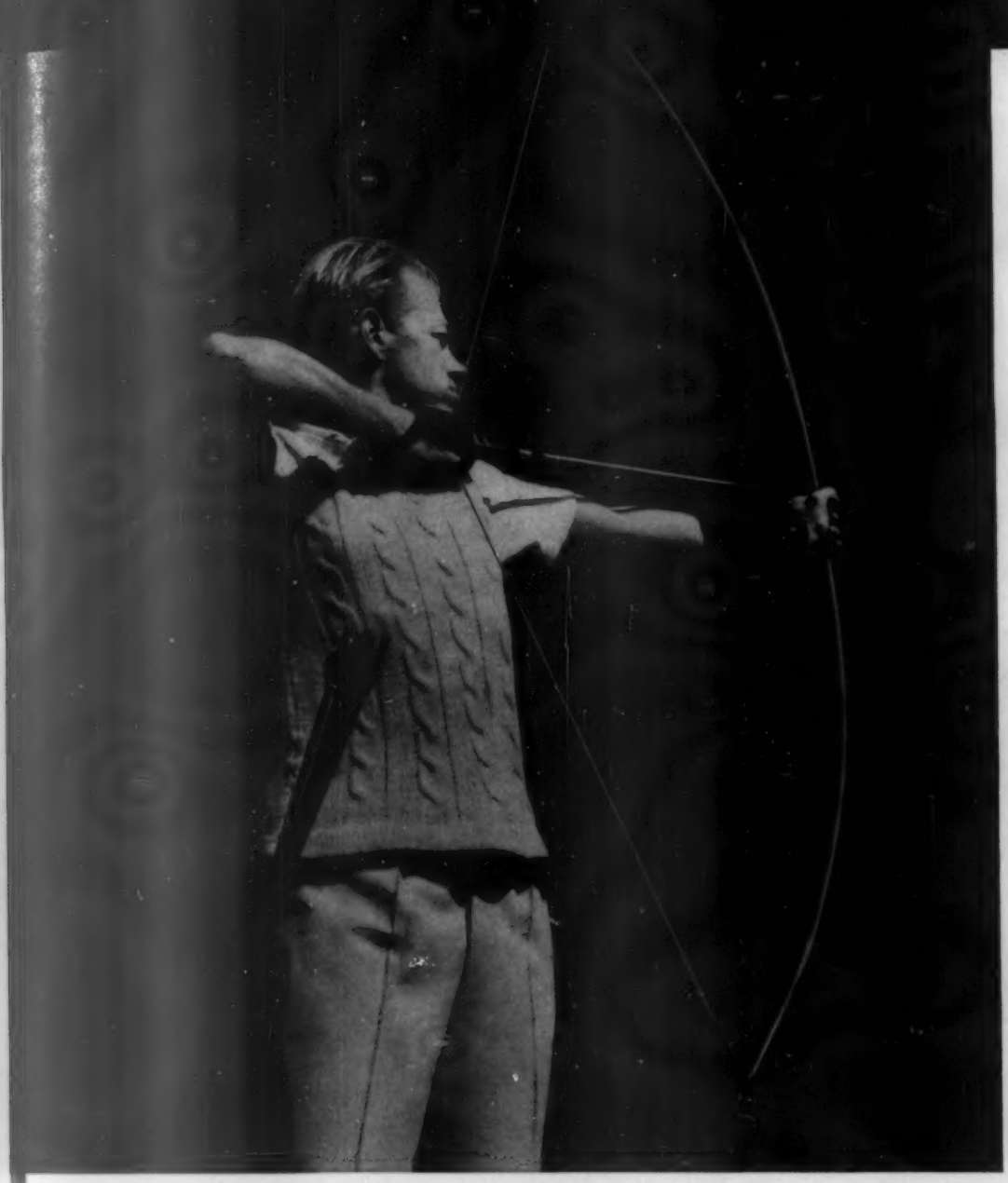
PRIMARY STOCKS*

(Thousands of Barrels)

East of Rockies

	June 12 1959	June 13 1958
East Coast	39,778	32,126
Midwest	28,911	30,694
Gulf Coast	23,011	18,545
Total	91,700	81,365

* American Petroleum Institute.



HARTOL

POINT OF AIM...

If you're planning to sink a few shafts in the profit bull's-eye this year, now's the time to aim for it. For over three decades, HARTOL's superb facilities have been helping top independents hit their money targets . . . providing 16 convenient, modern terminals, storage for peak operation, and dependability under *all* conditions. Get the greatest service story in the entire industry from your HARTOL representative.

- Largest independent marketer of gasoline and fuel oil on the Eastern Seaboard.
- First in experience . . . cooperation with independent jobbers and dealers . . . ability to serve.

HEATING OILS • GASOLINE • KEROSENE

HARTOL PETROLEUM CORPORATION
630 FIFTH AVENUE • HM-1159 • NEW YORK 20, N. Y.

Oilheating Trends

THE MONTH of May saw a fine improvement over a year ago in the number of domestic oilheating installations. In May there were approximately 45,098 compared with 33,019, the revised estimate a year ago. This represents an increase of nearly 37%.

For the first five months of the year, total installations are estimated at 204,962 or 11% above last year's 185,101. By applications, the May installations were: New homes, 14,436; Replacements of old oilheating, 17,043; and conversions from other fuels, 13,619.

For the five months, we find new homes 69,709 compared with 68,552 last year; replacements of old oilheating, show the large gain, 79,666 this year and 61,451 last year; conversions from other fuels continue surprisingly stable with 55,587 in the first five months, almost the same as last year's 55,098. This phase of the market is being sustained by coal companies that have gone into the fueloil business and are converting their own customers.

May Minimum Retail Prices: Key Dealers

	May Avg.	Apr. Avg.
Separate Burners	$315	$317
Boiler Burners	731	725
Furnace Burners	613	607

Price Index: Separate Burners 1947-49 is 100%

WHOLESALE			
May	94.6	Six months ago	96.5
April	93.2	Year ago	96.6

RETAIL			
May	92.1	Six months ago	92.4
April	92.2	Year ago	92.3

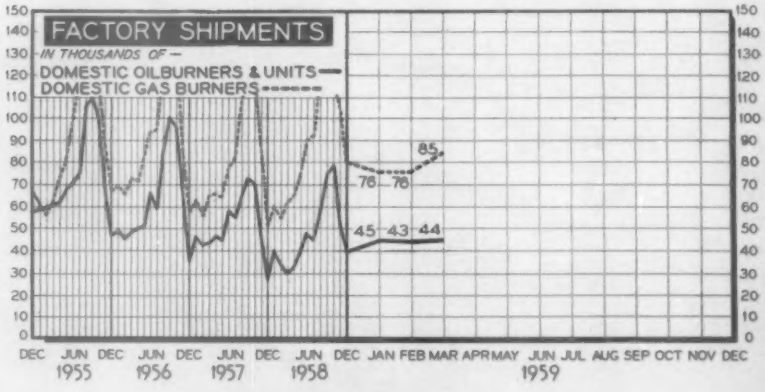
In fact, several fueloil companies are actively buying the dwindling coal retailers just to have a backlog for conversions.

During May oilheating dealers accounted for approximately 3,319 new installations of complete airconditioning and 1,694 water heaters equipped with power oilburners.

Dealer Stocks: At the end of May dealer's were holding approximately 73,159 domestic oilburners and units in stock compared with 73,183 a month earlier and with 76,555 a year earlier. These were divided: separate burners, 35,850; boiler-burner units, 13,168 and furnace-burner units, 24,141.

Factory stocks on March 31 (the latest available data) were 47,868 compared to 46,454 a year earlier.

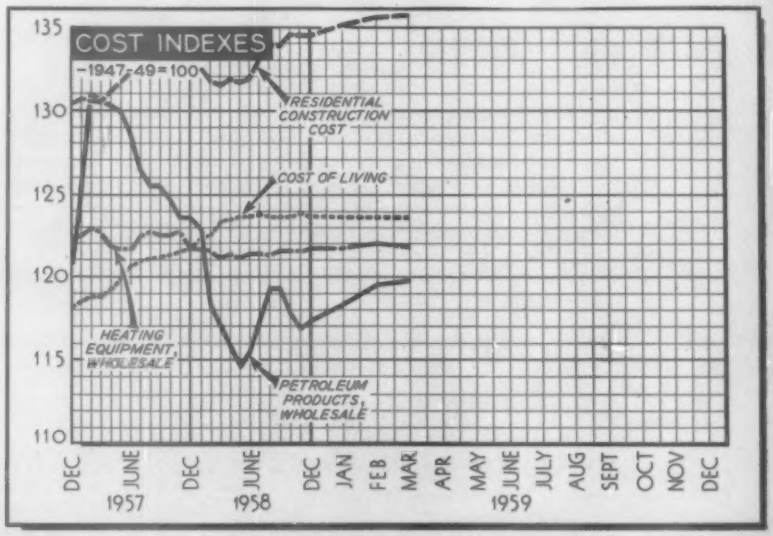
Tank Stocks: At the end of May, dealers were holding an estimated 33,802 consumer tanks in stock compared with 37,504 a month earlier and 38,667 a year earlier.


FACTORY SHIPMENTS
IN THOUSANDS OF —
DOMESTIC OILBURNERS & UNITS
DOMESTIC GAS BURNERS
85
76 76
45 43 44
DEC JUN DEC JUN DEC JUN DEC JUN DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1955 1956 1957 1958 1959

Shipments of Oilburners and Units
(Including Exports)
Adjusted to include manufacturers other than those reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	MARCH			THREE MONTHS		
	1959	1958	Percent Change*	1959	1958	Percent Change*
Separate Burners	30,367	17,864	+70.0	96,861	68,503	+41.4
Boiler Units	2,752	2,825	— 2.3	7,836	8,378	— 6.5
Furnace Units	10,384	9,575	+ 8.4	30,391	26,821	+13.3
All Domestic	43,503	30,264	+43.7	135,088	103,702	+30.3
Commercial	2,565	2,075	+23.6	7,891	7,627	+ 3.5
Total	46,068	34,813	+32.3	142,979	111,329	+28.4

*The 1959 figures are not directly comparable to 1958 since the Census Bureau has changed its base from which total shipments are estimated by them.


COST INDEXES
-1947-49=100-
RESIDENTIAL CONSTRUCTION COST
COST OF LIVING
HEATING EQUIPMENT, WHOLESALE
PETROLEUM PRODUCTS, WHOLESALE
DEC JUNE DEC JUNE DEC JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
1957 1958 1959

LARGEST SALES FORCE ANYWHERE IN U.S.

Day-to-day availability of Scovill salesmen and technicians assures finest service and advice! When you specify fuel oil and gas pump couplings by Scovill, the technical advice and services of the industry's biggest sales force become immediately available. You get expert, personalized service when and where you want it. You get *fast* delivery, too . . . all orders are processed the day received.

Every size is always available for immediate shipment. That's because Scovill makes a complete range—from ¾" to 3" in fuel oil couplings . . . and all standard sizes in gas pump couplings. For full details, write: Scovill Manufacturing Company, Hose Coupling Department, Waterbury 20, Conn.

MAIN OFFICE: 99 Mill Street, Waterbury, Conn. CLEVELAND: 4635 W. 160th Street LOS ANGELES: 6464 E. Flotilla Street HOUSTON: 2323 University Blvd. SAN FRANCISCO: 434 Brannan Street TORONTO: 334 King Street East

How did budget Plans wind up after the colder heating Season

SLIGHTLY over half (51%) of fuel-oil distributors reporting for this study say that they had to ask a majority of their customers who buy under budget plans to pay an extra amount at the end of the season. Naturally, there was a geographic variation with New England showing 60%, the Mid-Atlantic, 45%; and the Midwest, 71%; the Pacific Northwest found none of the reporting firms having to make many extra season-end billing. This is understandable because the season out there was again very mild.

This month's study gave us an opportunity to again check the acceptance of budget plans in the industry. It now appears that 19% of its fueloil customers buy on equalized monthly payments.

Extra Billing

Among all customers operating with budget plans, just under 35% got extra billing at the end of the season. New England showed 47% on this point, the Mid-Atlantic area 27%; the Midwest 48%; and the Pacific Northwest, 3%.

It was interesting to observe quite a lot of folks actually got a refund. These were sent to 22% of the budget accounts of the reporting group. This shows that a total of 57% of budget customers got a season-end adjustment —up or down—and the remaining 43% come out just about even.

On the refund side, New England shows 6% of budget customers getting them; the Mid-Atlantic shows, 40% on this point; the Midwest 5% and the Pacific Northwest, 18% getting money returned.

When there is extra money to be collected on budget payments, there are several ways in which it can be done. The majority of companies (68%) simply send the customer an extra invoice after the payments are in. Other approaches to the problem find quite a few companies just adding the unpaid balance to the next year's budget program spreading it over the months. Some others simply extend the regular monthly payments for one additional month into the summer and then equalize after that.

Few Squawks

We next asked the group how many of their customers make any complaint about extra billing at the end of the season. The answer is about 2%. It is highest in the Mid-Atlantic area with 3.4% and lowest in the Midwest at 1.3%. Apparently, this is not a critical problem.

One good thing about budget programs is that it is always possible to include an annual service contract dividing it into the overall monthly payment and keeping its impact small. We find that 47% of the budget plan customers among the reporting group include a service contract in the same payment.

Then we see that 53% of the dealers are pushing this idea and are trying to get their budget customers to include service. It was not strange to see that 18% of the dealers using budget plans also include life insurance coverage for the budget accounts.

Three-fourths of these particular dealers say that insurance has materially helped to sign up the budget accounts. Then about two-fifths of them say that insurance does help get the monthly collections in faster.

The method on the collection side is to tell any tardy budgeteer that the insurance lapses when a payment is past due.

We find that 64% of the companies use a ten month budget plan, 25% run them for the full 12 months and the remaining 11% would be quite flexible some using as many months as the customer wants, some starting in September or October and then running through the Spring. Some also will start in any month and terminate the first batch at the end of the heating season.

When we asked in what particular month they normally start, we found that in this group of companies 37% start with September, 32% with June, 26% with August, and 16% with July. The remaining few percentage points would be accounted for in the companies using other specific months —or letting the customer start whenever they like.

Occasionally a ten month program will skip a winter month like January, and a summer vacation month like July. When we asked these ten-month program operators which two months they skip, we find that 44% of them omit July and August; 18% leave out June and July; 12% omit May and June; 11% take out April and May, and 6% let them rest in July and January. The remaining small percentage is divided into numerous combinations.

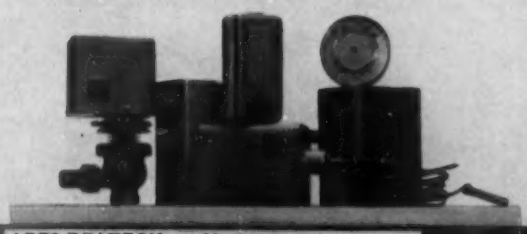
The comments on budget experiences were mostly very favorable to the whole idea. Typical are these:

"The turnover among budget customers is much smaller than the average." . . . "Old budgets were based on highest past consumption year; new budgets on which we had no experience were mostly too low." . . . "Our budgets are billed monthly so they know status at all times; also, our heating manager issued a letter in January suggesting customers increase monthly payments to avoid large balances." . . .

"Budgets are very helpful, especially on slow accounts." . . . "Our experience has been excellent; we were able to sell 100 budgets by letter and new customers are going for plan—approximately 75% are taking them." . . . "Many have increased payments to offset unusual demand." . . .

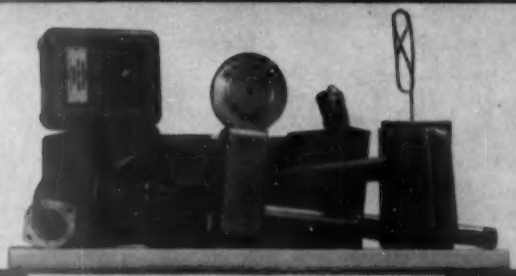
"The main benefit from insurance is advertising; we have not taken full

A COMPLETE LINE OF AUTOMATIC CONTROLS FOR DOMESTIC HEATING



RELIABILITY. *Outstanding service through the years proves one big fact: the General Controls line can handle the job. So service-free you can install it and forget it! For pressure controls, temperature controls, thermostats, combination immersion controls, motor valves and relays...you can count on Hydronic controls by General Controls.*

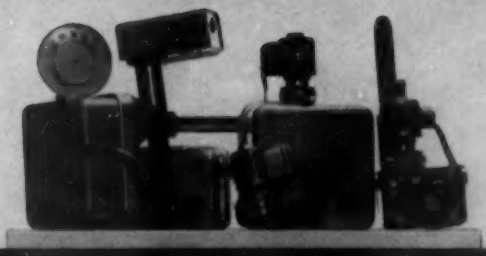
APPLICATION: Hydronics



EFFICIENCY. *General Controls gives you fast, accurate control just the way you planned it and designed it. When the General Controls thermostat calls for heat...relays slip into place...valves open...the fan control turns on the fan at the exact right moment. Everything happens with the smooth, quick precision you expect from General Controls.*

APPLICATION: Warm Air

SAFETY... *is of first importance in the manufacture of all General Controls. When your system requires flame detectors, oil burner primary controls, combustion safety relays, oil burner valves...* ***know*** *you can depend on the precision, the quality, the safety of Oil Heat controls by General Controls.*



APPLICATION: Oil Heating

SELECTION. *You* ***name*** *the gas system... General Controls has the automatic control...or control system... for the job. It's the* ***complete*** *line of automatic valves, regulators, pilots, thermostats...line voltage, low voltage, millivoltage...for any type of natural, LP or manufactured gas.*

APPLICATION: Gas-Fired Heating

Your best source for automatic controls... General Controls. Precision-built in six conveniently located plants. Field service by specialists out of 42 factory branch offices. Send for complete ***Heating Controls Catalog*** today.

GENERAL CONTROLS

America's Finest Automatic Controls for Product or Process

Glendale, Calif. • Skokie, Ill. • Guelph, Ontario, Canada

Six Plants—42 factory branch offices serving the United States and Canada

advantage of our plan, but intend to next year. In my opinion, budgets are of little value unless continuously and vigorously sold to your customers." . . .

"Most of our customers on budgets asked for them; budget buying is an American institution and with our sensimatic bookkeeping machine the accounting is taken care of automatically—yours for more budget paying customers." . . . "We used to offer a budget plan, but it became a nuisance and we get better results from deliver and pay." . . .

"Would like to have had 75% of our accounts on this plan." . . . "We use July and August to catch up on the extra fuel used—we revised some of our accounts in February." . . . "Since using budget insurance, we have doubled our budget accounts." . . .

"We usually 'overestimate' the customer's requirement so the budget plan worked out fine for this colder season." . . . "The plan is definitely not for chronic delinquents and should be cancelled when two payments are skipped and the account placed on regular monthly terms." . . .

"There was more demand for budgets this year; collections on budgets and routine accounts is still very poor —money situation is very tight." . . .

"A lot of people like the idea, but they just don't have the money to apply toward fueloil in the summer and fall months." . . . "We start budgets anytime, and then work them around to get them in line with the April starting date." . . . "Budget accounts are the most desirable; only wish we had all accounts on budgets." . . . "The budget plans worked out very well this year—did not have as many credit balances as previously." . . .

"Budget accounts are of little value to farmers—and 90% of our customers are farmers." . . . "Right now, we are getting more requests for budget plans than ever before—looks like they may increase 50%." . . .

"With the cold winter, customers will have to take an extra month to clean up their budget account." . . . "We will start a budget in any month just so it ends by the next July 1st."

Oilburner Permits*

MAY 1959		5 MONTHS 1958	1959
0	Albany, N. Y.	12	3
22	Baltimore, Md.	87	111
53	Bridgeport, Conn.	244	208
0	Columbus, O.	6	8
21	Detroit, Mich.	132	171
40	Elizabeth, N. J.	86	99
27	Freeport, N. Y.	50	77
59	Hartford, Conn.	237	352
27	Irvington, N. J.	38	69
..	Meriden, Conn.	134	..
19	Milwaukee, Wis.	177	82
..	Minneapolis, Minn.	77	..
5	Montclair, N. J.	47	33
2	Morristown, N. J.	..	8
..	Mt. Vernon, N. Y.	179	..
..	Newark, N. J.	191	..
53	New Bedford, Mass.	278	209
..	New Haven, Conn.	68	..
..	New Rochelle, N. Y.	43	..
..	Brooklyn-Queens	2,203	..
8	Norfolk, Va.	109	106
3	Omaha, Neb.	19	25
2	Orange, N. J.	20	9
2	Passaic, N. J.	19	15
12	Paterson, N. J.	71	70
..	Philadelphia, Pa.**	485	..
31	Portland, Me.	160	179
86	Portland, Ore.	648	381
4	Poughkeepsie, N. Y.	19	34
22	Providence, R. I.	132	154
26	Richmond, Va.	120	150
41	Roanoke, Va.	358	239
65	Rochester, N. Y.	180	193
3	Rockville Centre, N. Y.	13	12
28	Salem, Mass.	117	123
34	St. Louis, Mo.	571	194
5	St. Paul, Minn.	27	34
5	Schenectady, N. Y.	14	29
..	Spokane, Wash.	76	..
36	Springfield, Mass.	216	220
16	Stamford, Conn.	59	78
20	Washington, D. C.	164	108
19	White Plains, N. Y.	57	61
4	Wilmington, Del.	73	53
48	Worcester, Mass.	255	295
29	Yonkers, N. Y.	81	62
	Totals	4,896	4,246
	Percent Change		—13.3

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

**Courtesy of "Philadelphia Inquirer."

Where is the New home Market?

	No. of Permits Issued March	3 Mos.
Alabama	1,800	5,036
Arizona	2,476	7,029
Arkansas	379	1,084
California	24,165	56,065
Colorado	1,532	3,382
Connecticut	1,456	3,158
Delaware	120	262
District of Columbia	33	216
Florida	7,083	20,377
Georgia	956	4,618
Idaho	171	410
Illinois	5,268	9,453
Indiana	1,258	2,600
Iowa	785	1,298
Kansas	1,141	2,313
Kentucky	847	1,871
Louisiana	1,728	4,236
Maine	39	66
Maryland	2,338	6,033
Massachusetts	1,371	2,785
Michigan	3,864	7,139
Minnesota	1,244	2,588
Mississippi	283	912
Missouri	1,805	5,751
Montana	243	321
Nebraska	742	1,221
Nevada	340	1,033
New Hampshire	216	316
New Jersey	3,387	6,867
New Mexico	884	2,526
New York	9,793	23,991
North Carolina	1,324	3,297
North Dakota	98	139
Ohio	4,451	8,750
Oklahoma	931	2,576
Oregon	800	1,818
Pennsylvania	4,302	8,013
Rhode Island	241	449
South Carolina	437	1,211
South Dakota	179	318
Tennessee	1,232	3,619
Texas	8,033	20,926
Utah	799	1,495
Vermont	20	24
Virginia	2,555	5,371
Washington	2,072	5,722
West Virginia	370	710
Wisconsin	1,535	3,194
Wyoming	138	294

Greater detail on permits within the individual states is included in a booklet, "New Dwelling Units authorized by local Building Permits," issued monthly by the Bureau of Labor Statistics. U. S. Dept. of Labor, Washington 25, D. C.

Another monthly High set by construction Contracts

CONSTRUCTION contracts in April totalled $3,778,419,000 setting a new high for any April, and a new all-time high for any month when allowance is made for seasonal influences, according to F. W. Dodge Corp., New York.

The Dodge index of construction contracts reached 299 in April—this is an all-time high for the index. The previous high point was 297 in June 1958—the 1947-49 period is the base of 100.

Residential building contracts in April were valued at $1,830,787,000, an increase of 48% over April 1958. The number of dwelling units totalled 141,370, up 44%.

B&G BOOSTER

...preferred* because *it's quiet where silence counts*

The preference for B&G Boosters is easy to explain. Above all, they are quiet—vibrationless...no noise to ruin a correctly designed and installed circulated water heating or cooling system.

They are dependable and *profitable*—not a cause of endless service calls. Sturdy construction of best materials assures faithful performance for years.

B&G manufactured motors are specially built units...alloy steel shafts are oversized, affording large bearing surfaces. Extra long sleeve bearings promote smooth, quiet operation and spring-type couplers further dampen noise and vibration. The extremely hard seal positively prohibits water leakage into the bearings.

B&G Boosters are produced by a manufacturer who stands back of his product—who offers help in any problem of design or installation—and whose distributors maintain adequate stocks to serve your needs.

The sales record of the B&G Booster is clinching proof that its superior quality and performance has never been challenged!

***More B&G Boosters are sold than any other pump made for the same purpose. Nearly 3,000,000 have been installed to date.**

QUIET, VIBRATIONLESS B&G MOTOR

A glass of water placed on a running Booster motor will not show a tremor on the surface of the water. The resilient mounted motor is specially designed and built in the B&G plant to operate without hum or vibration.

Noise-dampening coupler

Spring-type—lessens starting torque—contributes to quiet operation. An exclusive B&G engineering achievement.

Oil lubrication system

Wool wicking carries up oil from well and deposits it on bearing surfaces. Convenient oil cups make lubrication easy.

Bronze bearings

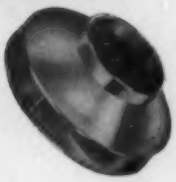
Extra long to provide the ample surface needed for quiet operation. Machined with diamond-boring units for minimum friction.

Super-finished shaft

High carbon steel—machined from solid bar stock, polished to mirror finish. Integral thrust collar is heat treated for extra hardness.

Leak-proof seal

The B&G Seal with its highly finished face resists wear and positively prevents water entry into the bearings.



True centrifugal impeller

Balanced dynamically and statically. Close tolerance between impeller and pump body prevents water slippage.

Write today for complete engineering data on the B&G Booster

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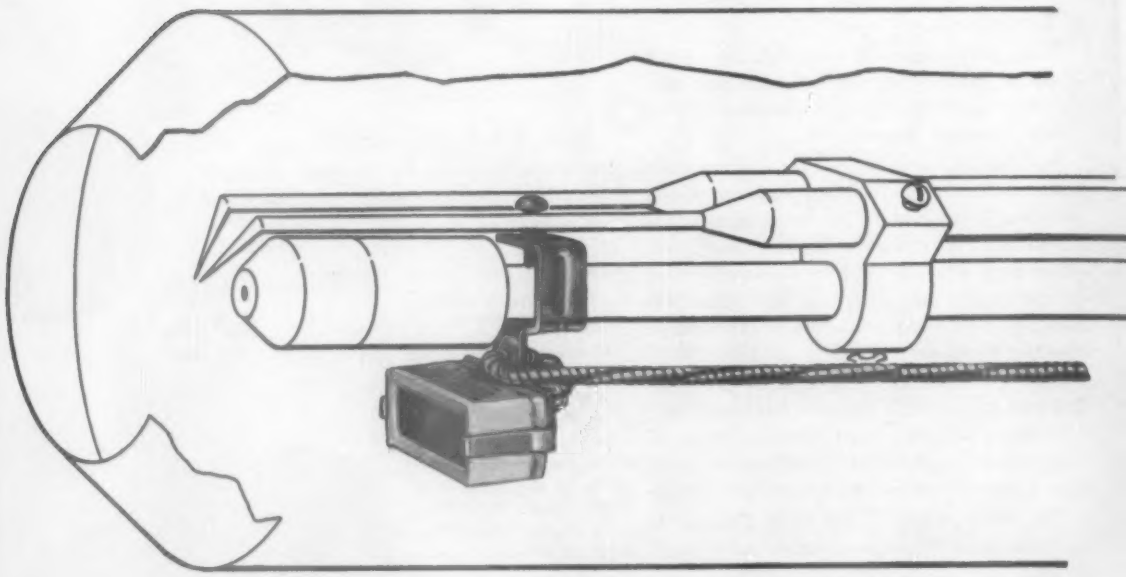
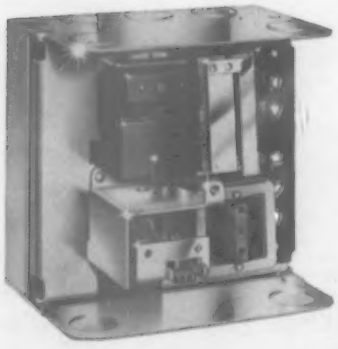
fueloil & oilheat

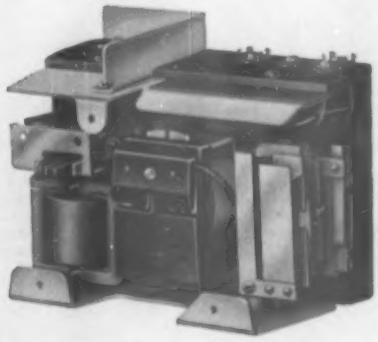
N

C549, Blast tube flame detector for packaged, oil fired furnaces and boilers. Gives neater appearance by eliminating stack detector, is easier to install. Quickly shuts down burner after flame failure. Exclusive magnetized starting contact. Use with either relay below.





R866, R867, Oil burner relays
For intermittent or interrupted ignition. On flame or power failure, attempts restart, if unsuccessful locks out on safety. Available with new junction box base.



R868, R869, Oil burner relays
Same as R866, R867 except that they are designed for burner mounting.

NEW

NEW Honeywell oil burner controls for packaged furnaces and boilers simplify installation

These new improved Honeywell two-piece oil burner controls are another result of Honeywell's extensive research and engineering. Honeywell continuously brings you new controls to make your business more profitable. And you profit many other ways by handling Honeywell's complete line of controls. You have easier installation, simplified inventories, a training school for your crew—*plus really fast help* when you need it. Honeywell backs up its products with prompt, efficient, nationwide service—instantly available from 112 Honeywell sales-service offices. There's one near you, just a phone call away.

Specify Honeywell the next time you order thermostats, heating equipment or air conditioning equipment.

For information on Honeywell's complete line of control systems for heating and cooling, call your local Honeywell office. Or write: Minneapolis-Honeywell, Department FH-7-110, Minneapolis 8, Minnesota. World-wide sales and service.

Honeywell

H HONEYWELL First in Control

Just released!

Nu-Way FC oil burner for OEM's

Here's the first and only *completely integrated* oil burner for your residential furnace or boiler package. No larger than the basic "F" Model Burner, Nu-Way's new FC Burner, firing 0.50 to 4.50 g.p.h., can be completely factory-wired because primary safety relay and flame detector are *in the burner*. No longer do you have to ask the installer to complete, properly assemble and wire the burner and its safety components in the field. And Nu-Way will "tailor" this burner to the performance standards you've set for your units. Write Dept. FO-759 for details . . . NOW!

completely integrated components!

- Primary safety relay and flame detector mounted *in the burner*
- Flame detector feels the flame *at the flame*
- Safety no longer dependent on remote stack element
- Responds faster to burner ignition and flame failure
- Costly B-X wiring streamlined
- Simplified in-plant wiring for OEM's
- Simplified wiring if burner installed in the field

THE Nu-Way CORPORATION
Heating Equipment
Rock Island, Illinois

ALSO ASK US ABOUT Sundstrand ALL-ELECTRIC BURNERS

Names in the News

Ivan C. Sutherland, executive secretary, Oil-Heat Institute of New England and of the New England Fuel Merchants Association, died on May 24. He had suffered a heart attack on March 13 but had improved sufficiently to spend three hours a day in the office.

Sutherland

He had succeeded Fred Beckwith as executive secretary just a year ago. Before that, Sutherland had served as educational director of OHI of New England and established the most comprehensive traveling oil heat school in the United States.

During the year he was executive secretary, the OHI of New England achieved its highest membership in history. Sutherland had been in the oilheating industry for more than 30 years. Burial was at Lynn, Mass.

Hans Lieblich, president and founder of H. Lieblich & Co., Inc., New York, was honored by the company employees on his 75th birthday. They presented him a plaque to commemorate the occasion. The company is in its 51st year of oilheating installation services in the New York, New Jersey and Pennsylvania areas.

Edward J. Doyle, Sr., and *David M. Jacobson* were recently elected to the board of directors, Amco Corp., Chicago. Doyle is a retired president and director of Commonwealth Edison Co.; and Jacobson has been corporation attorney for the firm for more than 15 years. Re-elected to the board were J. L. Cummings, president; S. T. Boras, executive vice-president, treasurer and general manager; and I. R. Filippone, vice-president and director of sales.

Herbert K. Henry has been named manager of marketing services, Airtemp Division, Chrysler Corp., Dayton, O. For the past five years, he has been supervisor of the plans and marketing division of N. W. Ayer & Son. Airtemp also appointed two new district managers: *J. J. McMahon*, formerly Philadelphia district manager, has been transferred to a similar post in Dayton; and *L. W. McInteer* will assume his position in Philadelphia.

Walter C. Leitch has been named vice-president, The Wayne Pump Co., Salisbury, Md., Division of Symington Wayne Corp. He will direct sales of all products of the Petroleum Equipment Division for the company. *Fred W. Weislander*, formerly manager of distributor sales, has been appointed general sales manager.

Louis H. Schuette has been named administrative vice-president for all operations, Sundstrand Corp., Rockford, Ill. *A. H. Swenson* has been elevated from manager to vice-president of the company's hydraulic division. He joined the Sundstrand engineering department in 1935, became master mechanic of the hydraulic division in 1941 and served as the division's works manager and division manager.

Richard B. Schmidt has been named general sales manager, Mueller-Climatrol - Milwaukee, Div. of the Worthington Corp., to supervise all national sales activities. *George M. Hase* becomes manager of product planning and *Robert A. Hoehne* succeeds Hase as manager of sales engineering. Schmidt joined Mueller Climatrol in 1947; Hase has been with the company since 1948; Hoehne had been a Mueller Climatrol field sales representative and sales engineer.

Schmidt

No. 175

OPW
SWING
CHECK
VALVES
hold prime

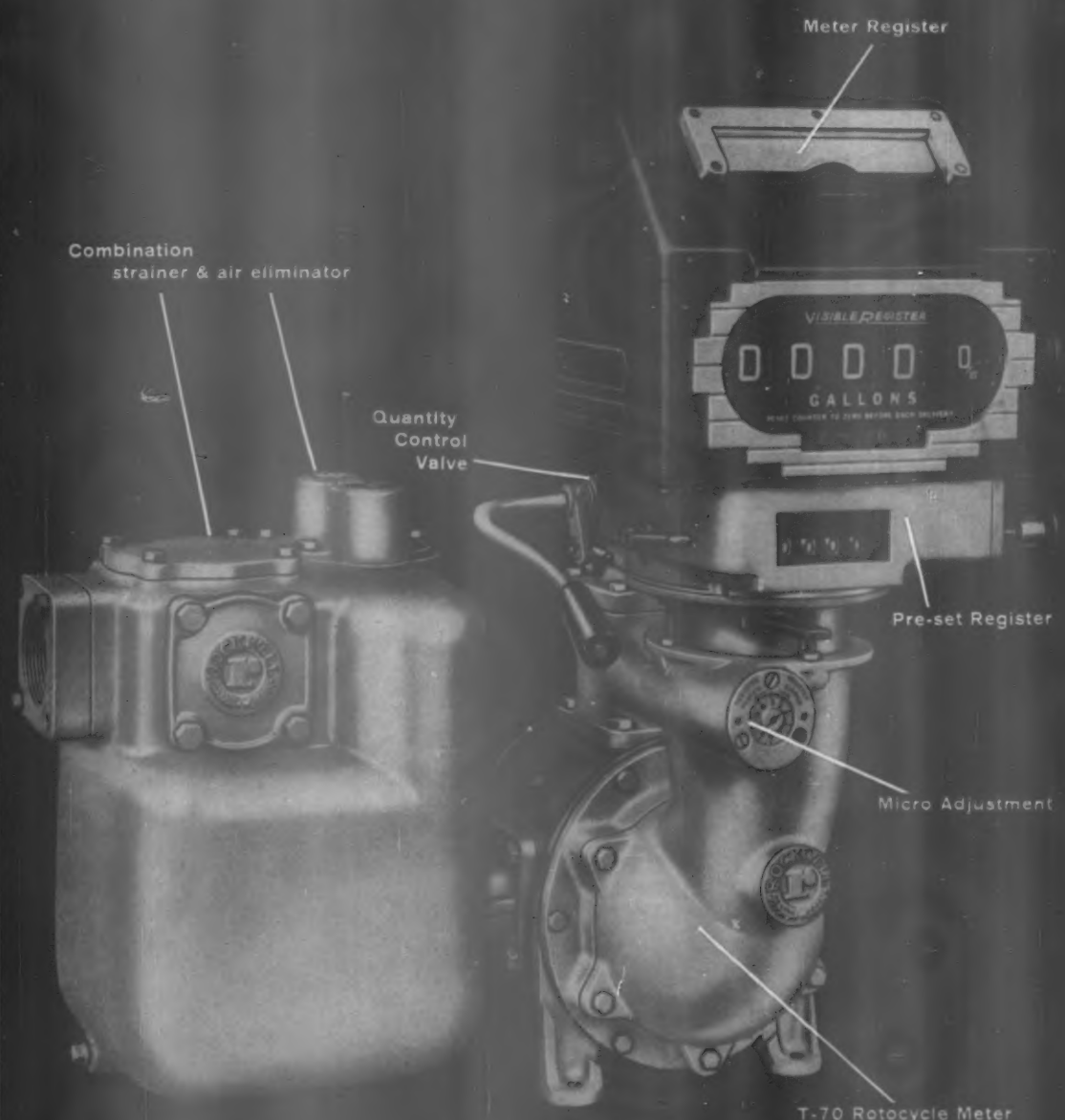
No. 1175

No ordinary group of valves, these OPW Check Valves have been specifically designed, ground and lapped for gasoline service. They are 100% tested to effectively and reliably do a particular job . . . hold prime.
These are but a few of OPW's prime holders. Write for new Bulletin F-24 for full description of these and other types.

No. 1175 F

OPW CORPORATION
2723 COLERAIN AVE., CINCINNATI 25, OHIO
VALVES • FITTINGS • ASSEMBLIES
for handling hazardous liquids.
Kirby 1-5400

Sized right, made right —



COMPACT—COMPLETE—CONVENIENT

to fit right into your trucks

NEW ROCKWELL "T-70"

ROTOCYCLE TANK TRUCK METER

(Rate of flow 14-70 gpm)

INSTALLS MOST ANY WAY — ANYWHERE

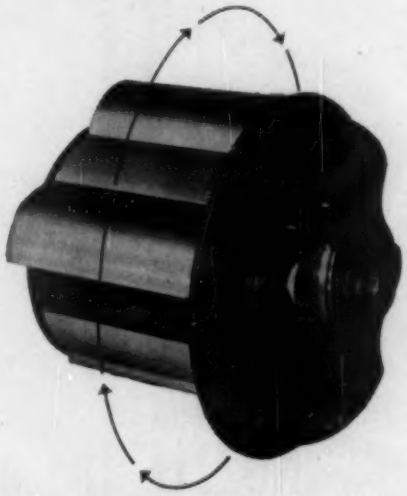
No tank truck meter is easier to install than the new Rockwell "T-70." There are *three* optional inlets, *two* optional outlets. And you can make either a right-hand or left-hand setting without using any extra parts. Thus these new compact meters will ease right into your truck compartments *and fit right*, both as new installations or as replacements.

Accessibility is another big feature in this design. The strainer and air eliminator are enclosed in a single housing. Both are accessible for routine cleaning by removing only four cap screws.

Trouble-free, shockproof, automatic shut-off is insured by a new smooth-closing system. Just pre-set the register, touch a lever and the meter will automatically shut down *in easy stages* when the desired quantity has been reached.

The meter itself is an accurate, reliable Rotocycle with performance now further enhanced by a new crank-type rotor control. It's easy to calibrate—only a screwdriver is required.

The Rotocycle "T-70" truck meter unit has been field tested for over three years. It's ready now to go to work profitably for you. Write for bulletin OG-410, Rockwell Manufacturing Company, Pittsburgh 8, Pa.



NEW ROTOR DESIGN IS SIMPLE, STURDY. HAS FEWER PARTS AND IS PERMANENTLY TIMED

The rotor in this new Rotocycle meter is controlled by a simple coordinated linkage. This new design does not alter the proved Rotocycle "floward" operating principle. It does enhance performance by providing the advantages of fewer parts, permanent timing and quiet operation.

ROTOCYCLE METERS

another fine product by

ROCKWELL

you'll notice a big difference

DELAVAN

TYPE "W" NOZZLE-the industry's only "all purpose" nozzle

Delavan's type "W" may be used in any burner (from .50 GPH thru 1.35 GPH) regardless of air pattern. This means you can eliminate the practice of trying two or three nozzle patterns to get a good fire. Now, *one quality nozzle* insures good performance . . . saves you time and worry on those small burners.

Another exclusive — Bi-Metal Construction — only Delavan uses a brass body with stainless steel metering parts. Brass is used because it conducts heat away from the nozzle faster *after burner shutdown.* This helps to reduce the build-up of varnishes inside the nozzle that clog or distort the spray. Stainless steel is used in the orifice and distributor to provide durability in those parts where wear might be a factor.

From the world's largest nozzle manufacturer

DELAVAN *Manufacturing Company*

WEST DES MOINES, IOWA

Oster Limited, 12 Leswyn Road, P.O. Box 608, Station L, Toronto 10, Ontario, Canada

. . . . Names in the News

R. W. Tribble has been named manager of project and builder sales, Air Conditioning Department, General Electric Co., Tyler, Tex. Succeeding him as specialist-sales planning is *David T. Donovan. William G. Burk* has been appointed specialist-publicity.

John Kerber has been named manager of the New York office, Commercial Filters Corp., Melrose, Mass. His headquarters will be in Ridgefield, N. J., where a complete stock of filtration equipment is maintained for customer service. *Herbert A. Wilson* has been named eastern district manager with headquarters in Melrose. He will cover the entire Atlantic Coast. Commercial Filters has also named the *Jesse W. Eakins Corp.*, Detroit, Mich., as representative in Michigan.

Robert B. Gilbert has been appointed national sales manager in charge of heating and airconditioning products, Home Products Division, Rheem Manufacturing Co., Chicago. Other division appointments concern *Harry M. Gage*, now assistant general sales manager in charge of administration and *R. E. James* named national service manager.

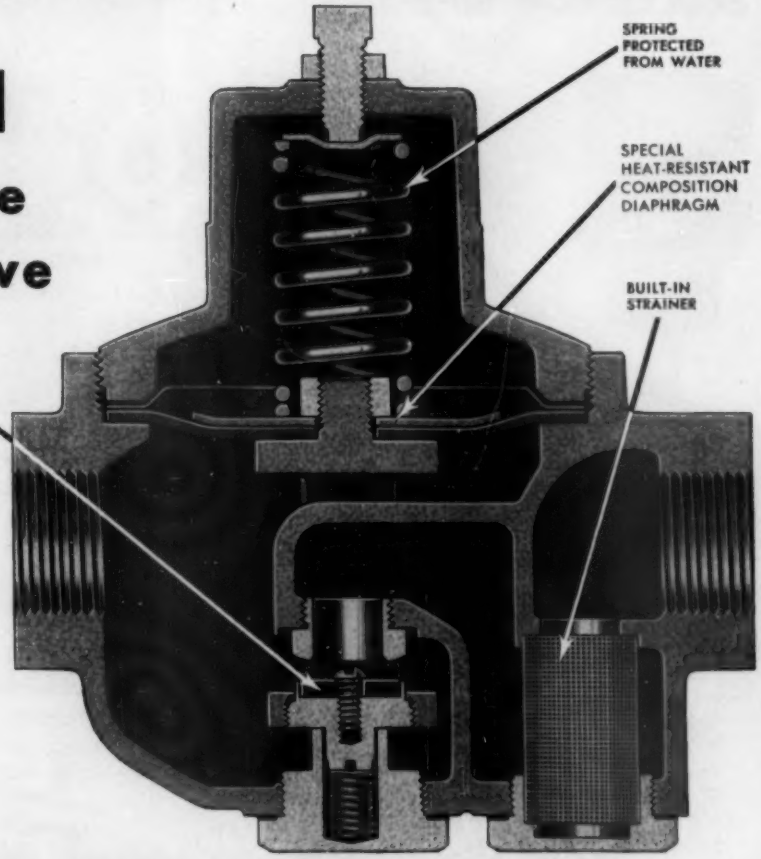
John J. Freeman has been named vice president and general manager, Magnetrol, Inc., Chicago. He was most recently associated with International Register Co., Chicago.

William Fay has been named chief design engineer for the TCG panel division, Minneapolis-Honeywell Regulator Co., Minneapolis. He will supervise the design of residential airconditioning control panels and centralized control centers for commercial buildings. Another Honeywell appointment is *Warren Scott*, product manager for residential airconditioning and low-voltage thermostats.

Lloyd B. Gruman, Jr., former secretary of the Mechanical Contractors Association of America, Inc., has resigned to accept the position of secretary of the Mechanical Contractors Association of New York. *Robert B. Miller*, secretary of the New York group since 1930, retired July 1.

Your Opportunity for
GREATER SALES

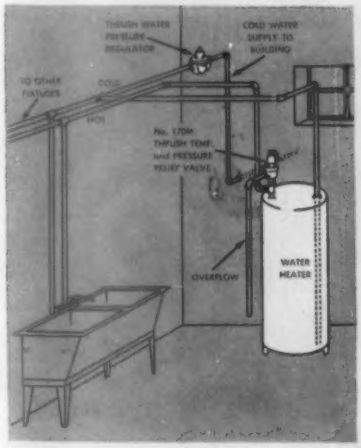
THRUSH
Water Pressure Regulating Valve


SPRING PROTECTED FROM WATER
SPECIAL HEAT-RESISTANT COMPOSITION DIAPHRAGM
BUILT-IN STRAINER
SEAT REMOVABLE FOR CLEANING OR REPLACEMENT

1. Protects Fixtures
2. Reduces Water Hammer
3. Provides Correct Pressure
4. Large Dishwasher Installations need a Thrush Water Pressure Regulating Valve

OPERATE WITH INCOMING PRESSURE UP TO 250 POUNDS AND UP TO 100 POUNDS REDUCED PRESSURE.

THRUSH WATER PRESSURE REGULATING VALVES			
NO.	SIZE CONNS.	MADE OF	WEIGHT
20	½"	Brass	3¾ lbs.
50	¾"	Iron	4¾ lbs.
60	¾"	Brass	4¼ lbs.
70	1"	Brass	5½ lbs.



COMPLETELY REDESIGNED

As MUNICIPAL water lines are extended to new housing developments and main pressures are raised, the Thrush Water Pressure Regulator becomes a "*must*" to protect fixtures from damage and to eliminate objectionable "hammer." Recommend and install them now for greater profit.

Improve large dishwasher machine operation by controlling rinse spray pressure. High or fluctuating inlet pressures are automatically controlled to give constant delivery pressure. See your wholesaler today or write Department C-7 for literature and prices.

QUALITY HYDRONIC SPECIALTIES

H. A. THRUSH & COMPANY

PERU • INDIANA

fuel oil & oil heat

MODERNIZE YOUR OLD INSTALLATIONS

with the

SCULLY VENTALARM®

Whistling Tank Fill Signal Type LC

Quick compression fitting with bayonette lock eliminates pipe threading, permits installation in 10 minutes or less. The VENTALARM Signal Type LC fittings available for all size vents.

VENTALARM Signals on both old and new tanks are saving thousands of dollars every year for individual companies and millions of dollars for the industry.

Write for VENTALARM Signal specifications and prices.

The VENTALARM Signal is made only by:

SCULLY SIGNAL COMPANY

176 GREEN STREET
MELROSE 76, MASSACHUSETTS

IN CANADA: E. S. Gallagher Sales, Ltd.
10 Hafis Rd., Toronto, Ontario

The term "VENTALARM" is a registered trademark and is applicable solely to liquid level indicators, manufactured by the Scully Signal Company.

Proposed Merger of boiler Associations called off; SBI will expand Activities

A PROPOSED merger between the Steel Boiler Institute and the Institute of Boiler and Radiator Manufacturers has been called off in favor of new plans by SBI for expanded activities and programs, according to an announcement by Edmund J. Grady, newly elected president and chairman of the board of directors.

Grady

"It was the feeling of the SBI members at the recent annual meeting that a number of projected industry plans could best be carried out by SBI, itself," reported Grady, vice-president, Pacific Steel Boiler Division, National-U. S. Radiator Corp.

The association is planning the addition of a new man to the staff to work on marketing, research and engineering projects.

A new issue of the SBI rating code will be released in the near future according to a report by L. N. Hunter, general chairman of the engineering committee. A special section will list ratings for boiler-burner units.

Other officers elected at the meeting were: Fred S. Hudson, Jr., National-U. S. Radiator Corp., vice-president; and R. A. Locke, secretary and treasurer. Named to the board of directors were: A. J. Hall, Burnham Corp.; J. F. Johnston, Jr., Johnston Bros., Inc.; and J. F. Sweeney, Titusville Iron Works Co.

A corrosion testing program conducted for the past several years at the Babcock & Wilcox laboratory has been completed and findings on the causes and prevention of internal boiler corrosion will be presented in publication form.

Henry Gibb, Pacific Steel Boiler Division, and chairman of the Better Heating-Cooling Council's commercial and industrial task force, outlined the new promotion program which will operate separately from the residential program.

1960 OHI Show to be held in New York's Coliseum

THE 23RD Oil Heat and Airconditioning Exposition will be held in New York's Coliseum during the first week in April 1960. R. S. Doherty, A. W. Cash Valve Manufacturing Co., Decatur, Ill., is exposition chairman and Gabe M. Marin, Sun Ray Burner Maunfacturing Co., Jamaica, N. Y., is vice chairman.

OHI's annual convention will be held during the week. Special trains and planes into New York City will be arranged by OHI. For a fixed cost, those attending will be able to buy their round trip transportation by train or plane, as well as their hotel accommodations.

Congratulations are being extended to H. H. Park, Inc., Katonah, N. Y., for 50 years at the same stand with the same brand. Above left is H. H. Park, Jr., son of the founder, with Harry Oakley, who has been with the firm for 34 years.

More of what it takes . . . that's what Mobilheat has! More customer satisfaction built into it! More progressive . . . and aggressive . . . selling power behind it! And for the final proof . . . more *customers!*
If you want to build your business around the fuel oil that leads the field in every way, call your Mobilheat representative . . . and talk business!

Mobil

Mobilheat . . . *America's largest-selling heating oil*

fuel oil & oilheat

WEBSTER TRANSFORMERS*

Fit over 200 oil burner models

Now it's easy to get the right transformer with the exact base to meet your needs... because each Webster is available with a choice of bases to match the burners in your particular territory. More than one hundred various base styles are available . . . makes Webster transformers easier to handle and service.

Your wholesaler is prepared to supply you with any combination of transformer and base you require. In addition, new terminal adapters simplify hookup with a minimum of parts — requires less time and labor.

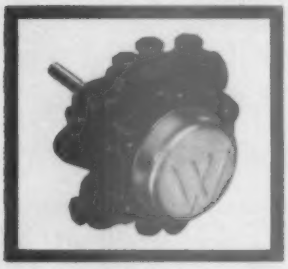
You can depend on Webster transformers in every way — to satisfy your customers with quicker starts, for longer, more dependable service. Install them every time!

REPLACE WITH WEBSTER . . . IT PAYS!

Webster ServiceSavers, too, are easier and more convenient to handle and service. Now available in the handy Universal Replacement Packages (one contains two single stage and the other, two 2-stage) replaces over 140 fuel units in current use. See your wholesaler.

TIME-SAVING, MONEY-SAVING REPLACEMENT DATA!

Webster Bulletin IT-2 contains comprehensive, up-to-date replacement charts on ignition transformers for nearly every burner model manufactured since 1947. *Write for your free copy — today!*



HEATING DIVISION
WEBSTER ELECTRIC
RACINE · WIS
our 50th year

Franklin adv. A-127

Weather Bureaus computing Discomfort Index Factor

ANOTHER FACTOR has been added to the reporting by Weather Bureaus of temperature and humidity conditions.

Recently Weather Bureaus in many parts of the country started publishing a Discomfort Index, explained as a combination of dry and wet bulb thermometer readings that measures the body's ability to keep comfortable by the evaporation of moisture.

The Index is computed by totalling the dry bulb and wet bulb temperatures, multiplying by a 0.4 factor and adding 15. For example, say the dry bulb reading was 83° and the wet bulb reading was 75° at the same hour. Adding the two results in a total of 158; multiplying by 0.4 makes it 63.2 and adding 15 gives a Discomfort Index at that time of 78.

This is a pretty poor reading, because Weather Bureau experts feel that 10% of the people will be uncomfortable when the index reaches 70, about half the people will feel discomfort at 75, practically everybody will complain at 80.

The term, Discomfort Index, did not meet with universal approval, principal objectors being hotel and resort operators. As a result, the designation and the factor now is reported as "Temperature-humidity-index."

The Index is expected to aid utilities in forecasting summer loads more accurately, indicate need for airconditioning in buildings and commercial establishments and add a new dimension to practically everyone's conversation about the weather.

Sewaren burner Laboratory to be moved by Shell Oil

SHELL OIL CO., New York, has announced that the oilburner laboratory, now located at Sewaren, N. J., will move into the expanding facilities at the Wood River, Ill., research laboratory during July.

The Sewaren lab was opened in 1929 and was the first of its kind to be devoted to experimental work directed towards improving both oilburning equipment and fueloil.

Several important developments were achieved at the laboratory. The

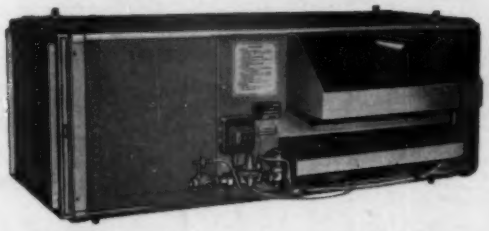
LOOK TO YOUR FUTURE

WITH THE LINE DESIGNED AND CONSTRUCTED

FOR COMPLETE SATISFACTION

MONCRIEF

Factory Assembled and Wired Upflow Winter Air Conditioners — Compact in Design, Substantial in Construction — For Basement, Closet or Utility Room Installation — Approved for Close Clearances — Adaptable for Cooling — Gas and Oil Fired Complete Line!



Horizontal Furnaces — Low and Compact for Limited-Space Installations — Complete Line of Gas and Oil Fired Models!

NO PREMIUM IN PRICE

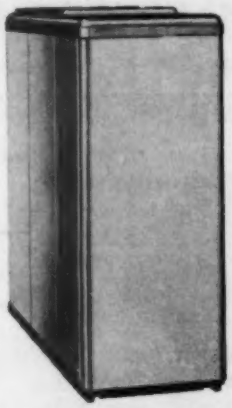
Since 1895, Moncrief Furnaces and Air Conditioners have been pleasing hundreds of thousands of *people* . . . somebody's customers!

This satisfaction can easily be transferred to *your customers*, and your business. To do so will cost you nothing, can make you plenty of money!

You pay nothing extra for the premium design, construction and performance which are the result of Moncrief's more than 60 years of manufacturing experience.

And Moncrief leads with competitive pricing, because Moncrief has stepped ahead with manufacturing advancements that produce substantial savings in cost!

If you are looking for a *better future*, based on real customer satisfaction and on increased profits, call your Moncrief Wholesaler, now!



Basement Type Winter Air Conditioners — Attractive Console Cabinets — Designed to Burn either Gas or Oil — Available in Assembled and Wired Oil Models!

Counterflow Winter Air Conditioners — Heavily Constructed, Compactly Designed — Approved for Close Clearances — Gas Fired and Oil Fired!

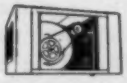
Underwriters' Listed Air Cooled Condensing Units — 2, 3 or 5 H.P. Capacities

Winter Air Conditioner — Upflow Type, with Plenum Evaporator Coil

Winter Air Conditioner — Basement Type, with Plenum Evaporator Coil

Winter Air Conditioner — Counterflow Type, with Counterflow Evaporator Coil

Horizontal Furnace — with Duct Type Evaporator Coil



Blower-Coil Unit — Compact Air Handling Combination

Gas Unit Heater — 5 Models

Conversion Gas Burner

THE HENRY FURNACE COMPANY • *Medina, Ohio*

HEATING AND AIR CONDITIONING UNITS — MONCRIEF SINCE 1895 — FURNACE PIPE AND FITTINGS

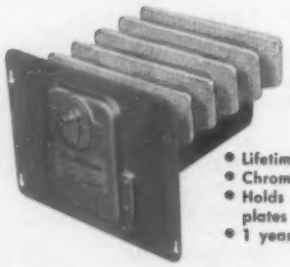
HOW TO **WIN** CUSTOMERS AND **INFLUENCE** PROFITS!

GENERAL HUMIDIFIER puts moisture in . . .
GENERAL FILTER takes harmful dirt out

Picture *your* customers in this happy setting . . . you've just installed a trouble-free GENERAL HUMIDIFIER and a dependable GENERAL FUEL OIL FILTER in the heating system. Typical dealer profit? About $15.00!

Sell your customers this double heating protection: a comfortable, *healthy* home thanks to increased humidity; steady, dependable heat that gives maximum efficiency, saves on fuel bills, ends middle-of-the-night callbacks for you!

YOUR SALES MARKET IS HUGE! Fewer than *one warm air furnace in five* has a humidifier. Millions are without a filter —or dirt-clogged cartridges are changed only infrequently. Every time you check a heating system, look for these easy sales!



Model 800
"Moisture-Matic"

- No float to stick or clog
- Corrosion-proof *molded* pan
- Lifetime neoprene diaphragm
- Chrome plated valve
- Holds up to 15 "Porous Weave" plates
- 1 year guarantee on parts

General Filter

- Lifetime cast iron and steel construction protected with rust-resistant plastic coating
- Wool felt cartridges—trap moisture, dirt, lint; prevent nozzle clogging
- Wool felt cleaned and bonded to center core
- 1A-25A, 2A-700A, 2A-300

HEALTHFUL HOMES are GENERAL-humidified . . . GENERAL-filtered

Member of the Humidifier Association

GF PRODUCTS **GENERAL FILTERS, Inc.** 43800 GRAND RIVER AVE. NOVI, MICHIGAN

IN CANADA: Canadian General Filters, Ltd., 39 Crockford Blvd., Scarborough, Ontario

Shell combustion head, now offered by many burner manufacturers, was designed here. Shell chemists devised FOA-5X fueloil additive to prevent clogging of filters, screens and nozzles. Research led to the rust inhibitor, "Sonitor."

More recently, the laboratory announced new combustion principles which permit the burning of conventional fueloil with a smokeless, blue flame at firing rates which are impractical with gun-type burners—less than a half gallon per hour.

This move to Wood River will integrate Shell's heating oil and diesel fuel research programs. The centralized location will be more accessible to the company's 17 marketing divisions, and thus afford greater opportunity for distributor participation in training programs.

ASTM publishes Report on distillate Stability

THE AMERICAN Society for Testing Materials, Philadelphia, has published "The Symposium on Stability of Distillate Fuel Oils." This contains the papers presented at the association's annual meeting last June.

Among the topics included in the book are: N. M. Edmands, Meenan Oil Co., Levittown, N. Y. on problems of large development oilheating; E. C. Olson, Delavan Manufacturing Co., West Des Moines, Ia., on performance of oilburner nozzles; E. A. Elmquist, Shell Oil Co., New York, reviewing the fuel stability problem; and W. L. Clinkenbeard, Esso Research, Linden, N. J., on stability measurement and control.

Other papers: C. C. Ward and F. G. Schwartz, Petroleum Experiment Station, Bureau of Mines, Bartlesville, Okla., on incompatibility of fuels; F. R. Dunn, Jr., and R. W. Sauer, Atlantic Refining Co., Philadelphia, on fueloil gel; and Robert Gray, FUEL-OIL & OIL HEAT, on the need for a stability specification.

Copies of "Symposium on Stability of Distillate Fuel Oils" are available from the American Society for Testing Materials, 1916 Race St., Philadelphia 3, to members $2.20 and to non-members for $2.75.

KEEPS A TIGHT GRIP ON THE PROFIT END OF YOUR HOSE!

SAVES TIME! SAVES OVERHEAD! SAVES MONEY!

More profit for Fuel Oil Dealers with the new Johnson Fil-Quik System! Locks tight! Fills Quick! Saves dollars!

Takes a big cut out of overhead by reducing labor and trucking costs, by economizing on equipment, by saving hours of time every day.

Made by the manufacturers of internationally famous Johnson Fuel Demand Meters, FIL-QUIK is the new, dependable, simple, safe and profitable way to fill fuel oil tanks QUICKER!

Mail coupon below for free booklet "The Fil-Quik way to more profits in Fuel Oil".

"THE FIL-QUIK WAY TO MORE PROFITS IN FUEL OIL"

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Home Heating Specialists for over 50 Years
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JOHNSON FIL-QUIK DIVISION
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Gentlemen:

Please send copy of "THE FIL-QUIK WAY to More Profits in Fuel Oil" to:

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ATTENTION OF _____

MAIL THIS COUPON TODAY
FOR FREE BOOKLET "THE FIL-QUIK WAY TO MORE PROFITS IN FUEL OIL"

field

DRAFT CONTROLS

FIELD TYPE M—Sizes 6 through 9 inches for oil and coal fired furnaces and boilers, 5 through 10 inch flues.

FIELD RC—Sizes 6 through 9 inches for oil and coal fired furnaces and boilers, 5 through 10 inch flues.

FIELD M + MG2—Sizes 10 through 32 inches, a triple-fuel control for oil, gas, oil-gas and solid fuel furnaces and boilers.

FIELD 6" INCINERATOR CONTROL—For fuel-less and gas-fired domestic incinerators with 6 inch flue.

FIELD RAA-RNA—Sizes 6 and 6-7 inches for space heaters, ranges and furnaces with 6 and 7 inch flues. Pre-set or adjustable.

FIELD SA-SNA—Sizes 6 and 6-7 inches for space heaters, ranges and furnaces with 6 and 7 inch flues. Pre-set or adjustable.

FIELD MG1—Sizes 7 and 8 inches, a double-acting control for commercial gas-fired furnaces and boilers with 6 through 9 inch flues.

FIELD CONTROL DIVISION

H. D. Conkey & Company — Mendota, Illinois

AFFILIATES: Conco Building Products, Inc. • Brick, Tile, Stone — Conco Materials Handling Div. • Cranes, Hoists

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Northwest Petroleum Group appoints committee Heads

JOHN KUETHER, president of the Northwest Petroleum Association with headquarters in Minneapolis, has named the committees and their chairmen for the year.

Co-chairmen of the Fueloil Committee are John Smith and Jack Couglin. Heading other committees are Don Dickey, Jack Couglin, Ed Melody, Myles Hall, Glen Nelson, D. F. McKinney, Jack Reed, Bob Tallman, John Decker and Al Saunders.

Other association officers are Craig Shaver, vice-president; Al Saunders, vice-president; Ed Kopplin, treasurer; and Hiff Horning, executive secretary

Massachusetts Association has Outing at Country Club

THE ANNUAL Outing of the Massachusetts Oil Heating Association was held May 21 at the Woodland Country Club, Newton, Mass.

Joe Hernon, Dorchester, was in charge of reservations and Fred Brehm was chairman of the prize committee.

Newly-elected president of the Connecticut Petroleum Association, William H. Wesson, right, W. E. Wesson Co., Waterbury, is congratulated by retiring president, W. D. Roth, Dahl Oil Co., Norwich. Officers and directors were elected at the annual meeting held during the Association's Ninth Annual Convention and Trade Show at the Hotel Statler Hilton, Hartford.

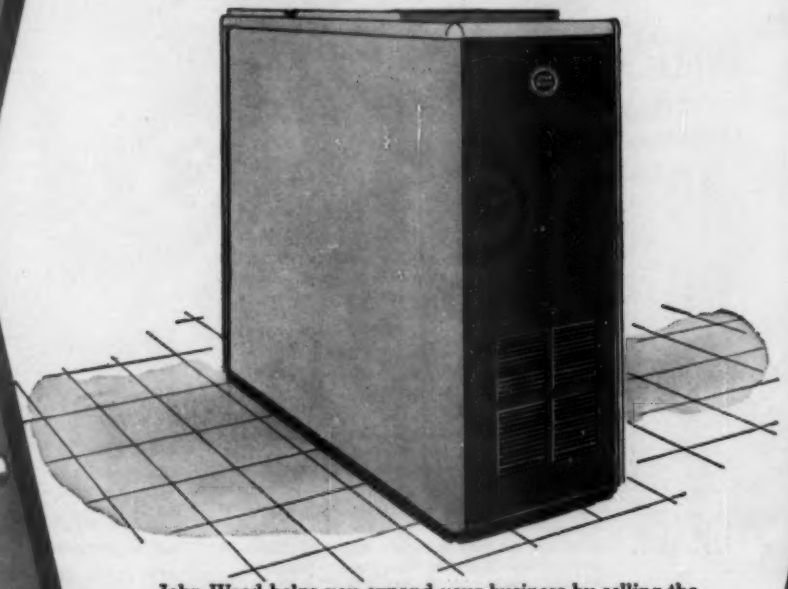
YOU SELL MORE BECAUSE... YOU HAVE MORE TO SELL

WITH THE JOHN WOOD FULL LINE

plus

HEATING

EQUIPMENT



John Wood helps you expand your business by selling the complete heating package – both house heating and water heating. You can supply the right furnace and water heater combination for every home heating need. You get the big economies of one source buying backed by John Wood's nationally-known reputation for quality.

JOHN WOOD COMPANY

Heater and Tank Division

Conshohocken, Pennsylvania • Chicago, Illinois

QUALITY PRODUCTS JOHN WOOD SINCE 1861

Glass Lined

OIL WATER HEATERS

THREE SIZES 30 50 70 GALLONS STORAGE

● A size to meet every home requirement. Uses pressure burner, number 2 oil and sells at popular prices. Has every feature for volume sales.

Also made in large commercial sizes for schools, hotels, hospitals and public buildings. Approved for 180 degree outlet water.

Details on request.

Bock Corporation

110 S. DICKINSON ST., MADISON 4, WIS.

OHI Insurance Trust puts Pension Plan into effect

A GROUP pension plan set up by the Distribution Division Insurance Trust of the Oil Heat Institute of America, New York, went into effect May 1.

Fueloil companies, oilheating equipment companies, jobbers, distributors and dealers are eligible if members of OHI. Firms that employ as few as four people can join.

Companies interested in setting up individual plans for their organizations should contact the Oil Heat Institute of America Insurance Trust, 500 Fifth Ave., New York 36, N. Y.

The Oil Heat Council of the Greater Philadelphia Fuel Conference launched its large-scale promotional campaign with displays at the 1959 Philadelphia Home Show. In addition to the three booths occupied by the Oil Heat Council, 12 refiners, suppliers and retailers took 19 other booths to make an effective fueloil industry display.

The OHC booth had a large bath tub kept full by ever-flowing hot water from an oil-powered hot water heater displayed in the booth. The attractive model assisted (above) by Marvel Wilson, Jr., demonstrated the comfortable temperature of the water frequently. Also on display was an open oil flame over which marshmallows were toasted. Shown looking on (below) is C. J. Malehorn, Young Supply Co., general chairman, OHC.

NOW IS THE TIME!

TO START INSTALLING SPEED-KLEEN FITTINGS

Your driver now has that extra minute you probably thought he couldn't spare during the peak cold weather. In many instances, all he needs to do is replace an ordinary fill pipe cap with a Speed-Kleen fitting. And thereafter, every delivery will be made easier, cleaner, faster, with delivery costs reduced as much as $5.00 per customer per year.

Deliver more oil with less work —make more profit on every gallon, by using Speed-Kleen nozzle tube and fill pipe fittings.

Don't continue losing profits, write or phone C.G. Eyster at

TIME SAVING FILLS, INC.

Phone York 6119

140 W. Market St., York, Pa.

S. B. SMITH (LEFT) AND E. L. WINN, OWNERS OF AUTOMATIC OIL CO., INC.

Gained 342 new Texaco Fuel Chief customers in 4 months!

That's the fine record achieved by S. B. Smith and E. L. Winn after they bought the Automatic Oil Co., Portland, Oregon. The firm has been in business for over 30 years, but the new owners changed to Texaco Fuel Chief only recently.

"Home owners know the fine quality of other Texaco products, and it is easier to sell them Fuel Chief when we say it is the cleanest-burning oil on the market," Mr. Smith says. "It means fewer burner service calls for us, too."

Mr. Winn says, "We like the way Texaco stands behind the Distributor. Their sales policies are fair, and we like to do business with them."

A solid future is one of the advantages of being a Texaco Distributor. There may be an opportunity for you. Call or write the nearest Texaco Division Office: Atlanta, Ga.; Boston 16, Mass.; Buffalo 5, N. Y.; Butte, Mont.; Chicago 4, Ill.; Dallas 1, Tex.; Denver 3, Colo.; Houston 2, Tex.; Indianapolis 1, Ind.; Los Angeles 5, Calif.; Minneapolis 3, Minn.; New Orleans 16, La.; New York 17, N. Y.; Norfolk 2, Va.; Seattle 1, Wash.

TEXACO FUEL CHIEF HEATING OIL

YORK-HEAT

HOT PRODUCTS
Boilers and furnaces skillfully designed to meet market needs.

HOT MARKETS
Compact line of oil or gas units to reach both builders and home owners.

HOT PRICES
Priced competitively to provide sales and adequate profit for York-Heat dealers.

HOT DEALS
Protected territories available to distributors and dealers interested in profitable future.

Pioneer and Specialists in Automatic Heat

YORK-SHIPLEY, Inc.
YORK, PENNSYLVANIA
Boilers to 600 Hp. — Furnaces to 5 Million B.t.u.h.

Francis Coan named President of Massachusetts Association

OFFICERS for the coming year were recently named by the Massachusetts Oil Heating Association. Francis Coan, Coan Brothers, Natick, is the president.

Other officers are Joseph Hernon, Hernon Oil Co., Dorchester, vice president; Robert Gray, Gray, Gray & Gray, Boston, treasurer; and Wilfred Hall, secretary.

I-B-R Heating-Cooling School honors its 12,000th Student

RICHARD BOWLER, Bowler Plumbing and Heating, Minneapolis, was recently honored as the 12,000th student attending the schools sponsored by the Institute of Boiler & Radiator Manufacturers.

He was among the 78 students attending the school in Minneapolis. This was one of 26 I-B-R schools planned for 1959. Other schools scheduled are as follows: July 14-16, Spokane, Wash.; July 21-23, Seattle, Wash.; July 28-30, Portland, Ore.; Aug. 11-13, Denver, Colo.; Aug. 18-20, Lincoln, Nebr.; and Aug. 25-27, Ames, Ia.

The schools are under the supervision of I-B-R's field training director, Arthur Wales, who has conducted the classes since 1950. Using I-B-R Guides as texts, students learn how to lay out the most efficient and economical system for one- and two-pipe forced hot water heating, series loop baseboard, combination heating and cooling, and independent chilled water cooling systems.

Arthur Wales, I-B-R field training director (left), presents Richard Bowler with a special certificate as the 12,000th student of the Heating-Cooling School.

Tattle DOT Tale
TRADEMARK

OIL TANK GAUGE

★ DESIGNED FOR PERFORMANCE
★ MANUFACTURED FOR QUALITY
★ PRICED FOR VOLUME SALES

Better 7 WAYS

1 An easy-to-read scale that is plainly visible in even the darkest places.
2 All-weather plastic top and guaranteed overall rugged construction.
3 Designed and engineered for inside or outside installation.
4 Heavy die-cast plug.
5 SPRING STEEL flexible float rod.
6 All moving parts hinged on durable BRASS pivots.
7 No maintenance, repair or regulation after installation.

for 1½ and 2 OPENINGS

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3420 S. W. 9th St.
DES MOINES, IOWA

Mr. Dealer
Stock this fast-selling gauge wit many exclusive features not fou in higher priced gauges.

WRITE TODAY FOR OUR LOW PRICES AND SAMPLE GAUGE

Constant ignition type. UL approved. Interchangeable with other makes in the field.

New W-R CONTROL CIRCUIT stops costly call-backs caused by unnecessary oil burner safety-switch lock-outs

White-Rodgers new 611-1 Oil Burner Control does away with expensive call-backs before they start. Its advanced new circuit eliminates practically all hard-to-check safety-switch lock-outs caused by short cycling or slow heat build-up in the stack . . . materially shortens testing time during installation, too.

Turn call-back losses into profit . . . see your White-Rodgers supplier for complete details on the new "serviceman-designed" 611-1 Oil Burner Control.

White-Rodgers "On-Target" Advertising goes regularly to
Architects • *Builders* • *Contractors* • *Home Owners*

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WHITE-RODGERS

CONTROLS FOR HEATING • AIR CONDITIONING • REFRIGERATION • APPLIANCES

ST. LOUIS 6, MISSOURI TORONTO 8, CANADA

fuel oil & oilheat

How to combine AUTOMATIC SCHEDULING with CUSTOMER BILLING!

Automatic scheduling of fuel oil deliveries means completely satisfied customers.

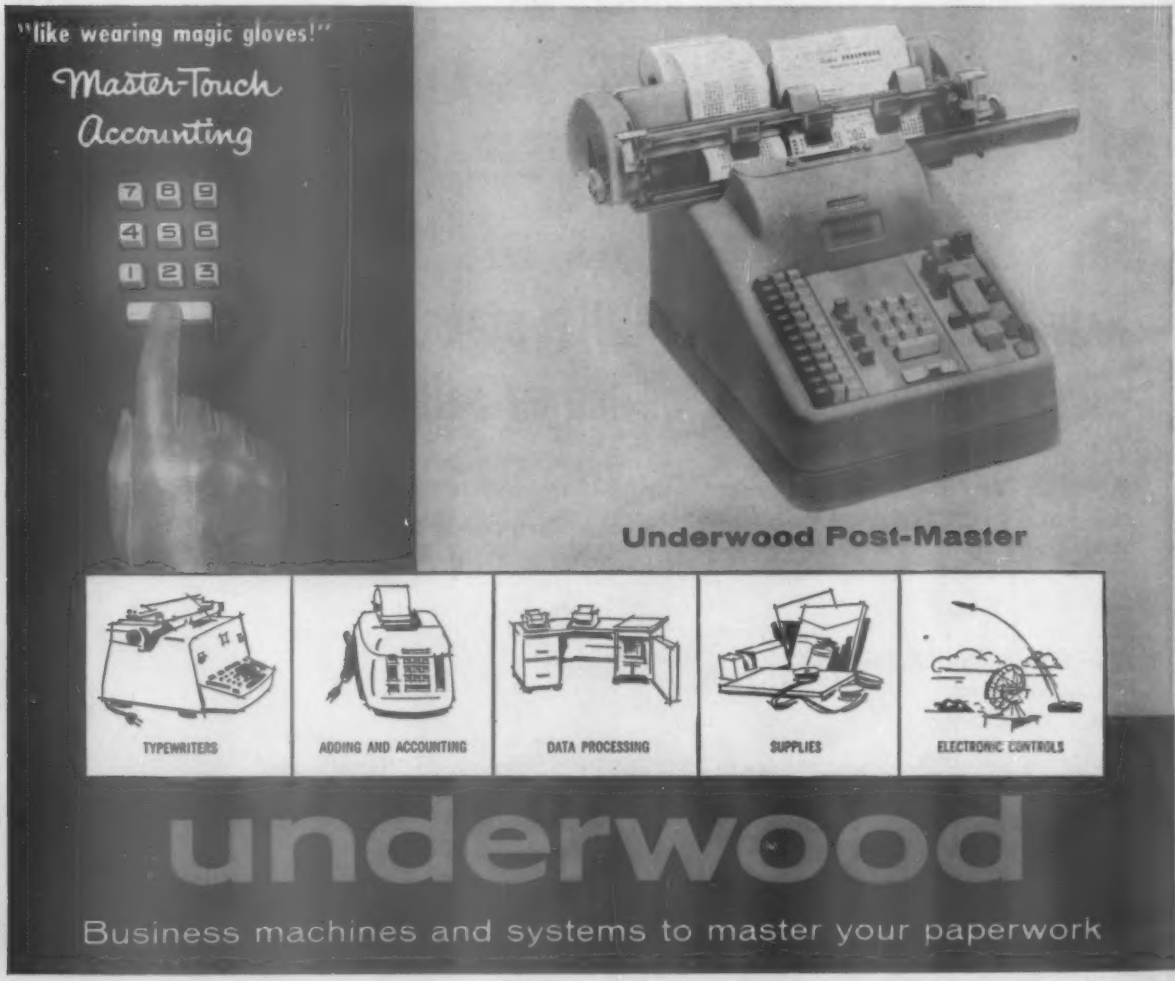
Prompt payments by customers mean more cash in the bank. When you think of savings, consider how the Post-Master* can add to your profit column.

One machine combines automatic scheduling of deliveries with customer account posting in a single high-speed posting operation... with "degree day" next delivery automatically printed on customer's account as well as "degree day" card. Proof of accuracy . . . no more errors . . . *plus* these important advantages:

- Accurate "degree day" deliveries at a glance . . . no guesswork.
- Statements always in balance, and ready to go . . . prompt statements mean prompt payments.
- Automatic proof at every step . . . no checking.
- Automatic total of daily charges.
- Automatic total of daily credits.
- Total accounts receivable outstanding available at a glance.
- Improved customer relations... on-time deliveries and machine-printed statements increase good-will.
- Reduced daily costs and overtime.

You can't afford to be without it. Underwood has a Post-Master for every dealer—large or small. Call Underwood for all the facts.

*An Underwood Trademark



Shown at the installation dinner of the Oil Heat Institute of Long Island are from left to right: William Jeffords, second vice-president, Suffolk; Douglas Blair, treasurer; Gordon Davis, vice-president, Suffolk; Ray Nathan, president; John Burns, supervisor of the Town of Oyster Bay; Leonard Braun, vice-president, Nassau and William Johnson, second vice-president, Nassau. Missing when photo was taken was assistant treaurer, James Wells.

Hold International Conference to discuss oil heat Promotion

ON JUNE 10 the International Oil Heat Conference met at Niagara Falls, Ontario, Canada, with representatives from the marketing area of Western New York and Southern Ontario present to discuss joint promotional programming.

The all-day meeting opened with a morning session devoted to presentations of advertising and public relation programs from the various marketing areas represented. During the afternoon the conference considered duplication of effort in present programs and sought ways and means to eliminate as much duplication as possible in both local markets and entire marketing areas.

The group plans further meetings to pursue the topic of oilheating promotion.

Committee is named to arrange warm air Meeting in St. Louis

TOM BYRD, president, National Warm Air Heating and Air Conditioning Association, Cleveland, has named 17 St. Louis men as members of the 1959 committee to plan the 1959 convention scheduled for December 3-5 at the Chase Park-Plaza Hotel in St. Louis.

The first session on December 3 will deal exclusively with Association business. The meeting on the next morning will be devoted to industry-wide problems including the Silver Shield Program. The final day's sessions will be designed for dealer-contractors.

Chairman of the convention committee is Charles H. Franke, who will be assisted by Walter Weiss. Both men are associated with the American Furnace Co., St. Louis.

Oregon delegates to the recent national convention of Oil-Heat Institute of America, Inc., held in Seattle, Wash., spread the word about Oregon's Centennial. From left to right: Everett Elliott, Fred Heaney receiving a centennial plate, Ed T. Heeg, Scott Partridge, and J. Hollis B. Albert.

1st

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PHILLY
RAPID-TITE
Fuel Oil Delivery System

. . . you can reduce delivery costs as much as 20%. We'll prove it to you with your equipment at your office. Ask our field service man or send coupon below.

PHILLY'S first for modern fuel oil delivery

- One Nozzle Connector fits all fills.
- One-quarter turn hook-up.
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- One "O" ring Seal for Cap and Connector.

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PLASTIC AND APPLIANCE CO., INC.
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EVER-TITE
Standard Adapter
and Coupler

Your best buy is

EVER-TITE
-the best quality
QUICK COUPLINGS

You save *time* and *money* when you use Ever-Tite Couplings because they speed-up deliveries, prevent leakage, and save wear on equipment.

Tightness is predetermined in manufacture by positive gasket compression. There are no sliding rings—no springs, ball bearings, snaps or lugs to fit. You just slip the coupler over the adapter, and close the handles.

If you want to get the *most* in coupling value get *Ever-Tite*. The Ever-Tite Trademark is a hallmark of dependability in fittings for the petroleum industry—proved by 18 years of pre-eminence. Ask your distributor now.

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Adapter and
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Coupling

EVER-TITE COUPLING CO. INC.
254 West 54th Street
New York 19, N. Y.

Dust Plug

Dust Cap

EVER-TITE Dust Protectors

Every EVER-TITE saves time and money

Attending the Lansing Indoor Comfort Bureau Silver Shield Training School are left to right: Roland Lewis; Prof. Charles Peterfield, Michigan State University; Fay Letts; Weston Pennell, William Wilson; Maurice Doty; and Larry Long.

Warm Air Association starts Lansing Silver Shield Program

AS PART of the nation-wide campaign to upgrade and improve the heating and cooling systems in homes, the Silver Shield Program has been started in Lansing, Mich., under the sponsorship of the National Warm Air Heating and Air Conditioning Association.

Since the first week in March, dealers have been meeting to organize the Lansing Indoor Comfort Bureau, the forerunner to Silver Shield installations. During the week of June 14 to June 20, the program was introduced to bankers, builders, real estate organizations, architects, city officials and contractors.

The Silver Shield Program has been underway in Kalamazoo for nearly a year and recently new officers for the Kalamazoo Indoor Comfort Bureau were named: Harold Guernsey, president; John Van Dalson, vice president; W. K. Ahlrich, treasurer; and Glen Rynbrand, secretary. Elected to the board of directors were John DeHann, Albert Vosburgh, Claude Bartholomew and Donald Snyder.

Heating Wholesalers attend Convention in Los Angeles

"MANAGE your Management" was the theme of the 12th annual spring convention of the Northamerican Heating and Airconditioning Wholesalers Association held in Los Angeles in May.

The Airconditioning committee formulated a resolution endorsing the Air Conditioning and Refrigeration Institute's program for certified unitary airconditioners.

A second presidential institute similar to the one held last February at Minneapolis-Honeywell was recommended by the education committee. This group also indorsed the dealer management training courses held during the year.

William L. Hoyt, Jr., Pasadena, California, was moderator of a workshop session called "How to select, upgrade and hold key Employees."

Another panel had the wives of members discussing why housewives should have year-round airconditioning, and in addition, how to convince the housewives to demand better heating and cooling. Walter Baak, Minneapolis-Honeywell, moderated.

Another workshop session was on upgrading and selling heating and airconditioning and had J. W. Burke, Los Angeles, as moderator.

Oscar Brauer, president, announced that two new committees have been created: one on electric heating and the other on solar heating. A unanimous vote of the membership changed the association's name from "National" to "Northamerican" Heating and Airconditioning Wholesalers.

President-elect Harold Squire presided over a luncheon where E. O. Morgan, Los Angeles, spoke.

George Madden is President of Northern New York Group

GEORGE MADDEN, JR., Madden Fuel Corp., Ogdensburg, N. Y., was recently elected president of the Modern Oil Heat Institute of Northern New York, Syracuse.

He replaces Lester G. Loomis, who resigned from the George Hall Corp. and also as the Institute's president

MARLOW PUMPS® CUT LOADING TIME 80%

At left—This Marlow 32-HELP-13 Self-Priming Pump powered by an explosion-proof motor, speeds truck loading more than 5 times faster than ever before for Reading.

Increase Home Deliveries 50% Per Truck With Marlow Pumps

In order to cut costs and improve service to fuel oil customers, Reading Merchants Ice Co., Inc. of Reading, Pa., has just completed a full program of modernization. The program included the addition of two new storage tanks which brought Reading's above-ground capacity up to 125,000 gallons.

To reduce filling time for their home delivery trucks, the firm installed a Marlow 32-HELP-13 Self-Priming Pump to speed gravity flow from the tanks. As a result, Reading now loads trucks at 560 gpm—*over five times faster than before!* Not satisfied with just speeding up truck loading, Larry Houck, Reading's General Manager, installed Marlow 2C2G pumps on their six 3,000-gallon trucks and *jumped home delivery rates from 40 to 100 gpm!*

According to Mr. Houck, a driver — with old equipment — could make 24 stops in an 8-hour day. Now, with Marlows, he can make 38 stops in 8 hours, increasing daily delivery from 4,000 gallons to 6,500 gallons.

After using Marlow equipment for over a year, Reading has increased the effectiveness and profits of their operation. "Of particular appeal is the high speed truck loading and home deliveries that cut operating costs," according to Mr. Houck. "I am very well pleased with the performance of Marlows, and plan to use them for all future improvements at Reading," Mr. Houck adds.

Marlow makes a comprehensive line of self-priming centrifugal pumps to handle petroleum products in the bulk plant or on home delivery trucks and transports. For complete details see your Marlow dealer today or write direct for Bulletin PM-06.

8-315

Marlow PUMPS®

MARLOW PUMPS®

DIVISION OF BELL & GOSSETT CO.

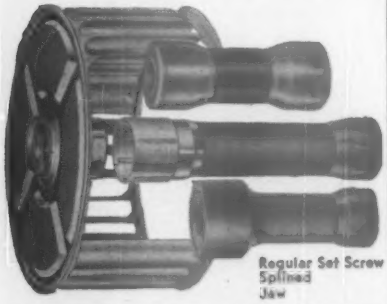
Midland Park, New Jersey

Morton Grove, Illinois — Longview, Texas

QUALITY is our business .. without *any* compromise

***AND ONLY* Guardian GIVES YOU ALL THREE —**

1. FLEXIBLE COUPLINGS



Regular Set Screw Splined Jaw

Only Guardian gives you these features—

- **ROLL SPINNING**—Exclusive process joins all three components at one time—while in final operating alignment.
- **BRAIDED RUBBER**—Ground to absolute true concentricity. Furnished in BUNA-N TUBE and NEOPRENE COVER. Lateral and angular alignment requirements fully met.
- **ONE-PIECE DESIGN**—Minimizes assembly and handling costs. Made to exact lengths required.

Over 5,000,000 Guardian couplings are on original equipment. This is your assurance of highest quality and universal acceptance in the field.

2. OIL TANK VALVES

No. 1910 B

Check These Superior Guardian Features—

- Metal-to-metal seating.
- Highest quality machined bar stock.
- Greater wall and body strength.
- Fusible linkage available in all designs.
- Valve designs for every type of installation.

3. QUIK JOINT

Steel compression fittings for connecting steel pipe.

Patent No. 2,685,460

- Eliminates threading of pipe.
- Decreases cathodic corrosion and electrolysis.
- Guaranteed for pressure up to 2000 P.S.I.
- Allows 7° angular deflection.
- U.L. approved for oil and gas.

Write for free descriptive literature.

Guardian PRODUCTS CORP.
COUPLING DIVISION

Dept. F-79 1215 East Second Street
MICHIGAN CITY, INDIANA

North Carolina Jobbers have peak Attendance at Meeting

MORE THAN 500 people were in attendance at the spring convention of the North Carolina Oil Jobber Association at the Carolina, Pinehurst, N. C., May 10-13. This was 25% larger than any other meeting held by the group.

Fueloil was highlighted by several speakers and reports during the convention. Among the speakers were Fred S. Burroughs, National Fueloil Council, New York; Ray Nathan, president OHI of Long Island and Ray Nathan Oil Co., Freeport, N. Y.; and C. A. Newcomb.

Included in the Fueloil and Advertising Committee's report was the possibility that the N. C. Oil Heat Council and the East Carolina Oil Heat Council be merged for better coordinated promotion efforts. Another suggestion was that a special representative be retained to contact builders and architects.

H. Shelton Castleberry was voted the first award given by the group to honor the person contributing the most to the advancement of the heating oil industry in the state. He has been chairman of the East Carolina Oil Heat Council, has headed up the consignment distributors section and has been active on many other fueloil committees.

Elect Swett President of Massachusetts Group

AT THE ANNUAL MEETING of the Oil Heat Council of Western Massachusetts, Inc., Springfield 1, Mass., Reginald K. Swett, Swett Bros., Inc., Springfield, was elected president. G. Walter Johnson, Northeast Fuel Corp., was named vice-president; Wilbur J. Hogan, Liberty Ice & Fuel Co., became treasurer. Keith F. Fletcher continues as executive secretary.

Directors named were: Gerald L. Auth, Auth Fuels, Inc.; William H. Flood, Converse-Carlisle Co.; James L. Grimaldi, Grimaldi Bros.; James B. Punderson, Punderson Oil Co.; Alfred V. Rivest, Alfred V. Rivest Oil Co.; Bernard W. Schorr, F. L. Roberts & Co., Donald S. Tufts, Taft Oil Co.

CLEANING POWER with the *Portable* NO. 521-8

take your SOOTMASTER in one hand hose and all

The Portable SOOTMASTER #521-8 weighing only 25 lbs. is the vacuum which offers the maximum filter area and largest soot chamber of any industrial cleaning unit of its size.

MASTERCRAFT'S exclusive hose-holder basket let's you carry the entire cleaner including the hose from job to job with only one hand. Users do more work with less effort.

Manufactured in U.S.A. by
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WEST HAVERSTRAW NEW YORK
Distributed in Canada by
IMPERIAL REFRACTORIES AND EQUIPMENT LTD.
Refractories Bldg. Waterloo, Ontario

JOBBER DISTRIBUTOR ENQUIRIES INVITED

NEW

NO REFRACTORY COMBUSTION CHAMBER

Spencer Package "C" Unit
Capacities—312,000 to 1,350,000
BTU Output—Steam and Water
SBI Net Ratings

SPENCER OIL-FIRED PACKAGE "C" UNIT

featuring . . .

NO REFRACTORY COMBUSTION CHAMBER! None to buy, none to build . . . merely locate precast refractory base, slide boiler shell into place, assemble jacket, and position burner unit . . . turn it on, and that's it!

LOWER COSTS! New Spencer Package "C" Unit is quickly and easily installed . . . no high installation charges. And the elimination of a refractory chamber means lower operating costs . . . *lower maintenance costs!*

LOWER WATERLINE! A full 20% reduction in waterline height. Spencer's Unit is a real space-saver . . . and simple to clean, too! Boiler fire tubes are easily reached through the front flue door.

NEW, PROVEN METHOD! Spencer's revolutionary firing method has been rigorously tested, in accordance with SBI Table 2 Code . . . tested and FULLY APPROVED! Build up your boiler business . . . with the sensational new Spencer Package "C" Unit!

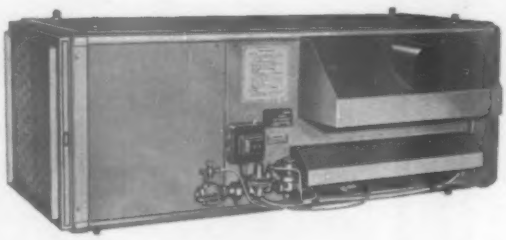
SPENCER HEATER
LYCOMING DIVISION
WILLIAMSPORT Avco PENNSYLVANIA

For complete details on any of Spencer's complete line of boilers, write to: Spencer Sales, Avco Corporation, Williamsport, Pa.

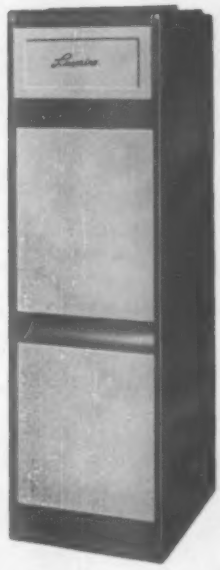
Luxaire® DEALERS PROFIT

WITH PRODUCTS THAT MATCH TODAY'S MARKET!

Compact Gas Fired and Oil Fired Winter Air Conditioning Units. Completely Assembled and wired. Heavily constructed and smartly styled. Equally adaptable for the basement, utility room or a closet.



Gas Fired or Oil Fired Horizontal Furnaces. A complete line of both types. Low and compact for the "tight" spaces. The excellent qualities of Luxaire design and construction throughout!



Gas Fired and Oil Fired Counterflow Units. Assembled and wired at the factory. The same compact design, trim styling and heavy construction as the upflow models! Cooling can be added any time!

Gas Fired and Oil Fired Basement Type Winter Air Conditioning Units. Burn either Gas or Oil with equal efficiency. Assembled and wired Oil models from 84,000 to 112,000 Btu Output!

TODAY'S Luxaire IS YOUR MOST COMPETITIVE VALUE!

Today's "lush" market is highly competitive – regardless of whether you are appealing to the new-home builder or the old-home owner.

If you are interested in *profits*, check these outstanding Luxaire advantages:

(1.) The Complete Line of Heating and Air Conditioning Units, Unit Heaters and Conversion Burners.

(2.) Durable, Heavy Construction.

(3.) Uncomplicated, Advanced Design.

(4.) Easy, Speedy Installation.

(5.) Satisfying, Trouble-Free Performance.

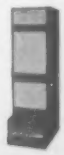
(6.) Consistently Competitive Prices you can depend on, year after year.

With Luxaire, you do not choose between a low price and excellence – for Luxaire gives you both! See your Luxaire jobber, today!

2, 3 or 5 H.P. Air Cooled Condenser-Compressor Unit. Underwriters' Listed for Outdoor-Installation.

Upflow Winter Air Conditioning Unit with Circular (Plenum-Type) Cooling Coil.

Basement Type Winter Air Conditioning Unit with Circular (Plenum Type) Cooling Coil.



Counterflow Unit with Counterflow Cooling Coil.

Horizontal Furnace with Duct Type Cooling Coil.

Air Handling Blower and Cooling Coil Unit.

Gas Fired Unit Heater. 5 Sizes.

Gas Conversion Burner.

THE Luxaire® C. A. OLSEN MANUFACTURING COMPANY • • ELYRIA, OHIO

HEATING & AIR CONDITIONING UNITS

Propose new oil heat Organization

API *Fueloil Committee outlines interesting "One World" Project*

AT THE SPRING Marketing Division Meeting of the American Petroleum Institute, held in Des Moines at the end of May, the Fueloil Committee presented a proposal that there be organized a single central group to handle all types of promotion, publicity, research and general trade association operations for the oilheating industry.

The report was presented by L. S. Marshman of Mobil Oil Co. as chairman of a special subcommittee that had been studying the possibilities in such a move.

Following his presentation to the General Marketing Committee, a second report was made by J. L. Minner of Shell Oil Co., as chairman of the Research Committee, who outlined the progress that followed the API grant of $75,000 to study oilheating equipment possibilities.

In opening the session, C. M. Blickensderfer of Sinclair Refining Co. and chairman of the Fueloil Committee, reviewed the origin of the two special subcommittees and their undertakings, going back to the New Orleans meeting a year ago. He also told of a two-day meeting just ended at Excelsior Springs, Mo., where the Fueloil Committee had explored a variety of industry problems.

Blickensderfer

The Marshman Report

This presentation was accompanied by five charts projected on a screen, principally showing the industry's statistical position. References to these charts have been deleted from this reporting.

IT'S TIME TO DO something real about fighting for our business in a more effective, well-organized way.

As you will recall, a Promotional Subcommittee of the Fueloil Committee was established in May of 1958. This committee reported at the November meeting in Chicago and recommended that National Fueloil Council, Inc., be the industry medium for the year 1959 for the overall promotion and advertising of oilheating. The recommendation was approved by the Fueloil Committee and steps were taken to implement the decision.

Marshman

In January of this year, just two months later, National Fueloil Council was in business, replacing its predecessor, Oilheating Market Reports. As you know, the refiner members of National Fueloil Council underwrite the cost of the central office and staff. Furthermore, the refiner members pledge a fund of money equal to ½¢ a barrel on their sales of kerosine, #1 and #2 fueloil, for heating purposes, in an area of 20 states and the District of Columbia. These pledged funds are to match funds raised by local marketer groups interested in promoting oilheating in their areas.

The response to the concept of National Fueloil Council has been very gratifying. In the old OHMR markets the local budgets are up by more than 105% as against the expenditure in these same markets in 1958. As an example of the enthusiasm which has been generated under this program I refer you to the Boston program which in effect covers eastern Massachusetts. The total budget here has been raised from $115,000 in 1958 to nearly $265,000 in 1959. Nine new markets have been added to the fold, making a total of 35 markets currently involved in the program.

As of today a total of approximately $750,000 has been raised by local groups and the same amount has been, or will be, released by the nine refiner members of National Fueloil Council. This total fund of $1,500,000 compares with about $860,000 expended in 1958 under the OHMR activity. Bob Gray has given National Fueloil Council the same able leadership which he gave OHMR in the past.

Unfortunately, thus far we have been unable to interest additional refiners to come into the fold of National Fueloil Council. The same nine refiners who participated in OHMR are carrying the load in National Fueloil Council. These refiners represent about 70% of all of the heating distillate sold in the east and about 30% of that sold in the Midwest, so you can see that this group is carrying quite a load. As a matter of fact, as far as the Midwest is concerned it represents a load which may prove too heavy to carry for another year.

We need many more refiner members in the Midwest and several more in the east in order that the refiners carry their share of this project. It does not seem proper that some should be expected to save the middle of the barrel for all. I cannot urge too strongly that you other refiners join the team—become a part of National Fueloil Council now. We need your support badly if our present effort is to be continued and expanded.

The same Subcommittee which recommended that National Fueloil

Council be the medium for 1959 has continued to study what the industry program should be down the road for a more successful fight for our business. The Subcommittee reported at the Fueloil Committee meeting at Excelsior Springs on Monday of this week (May 25). It recommended—

1. That all phases and activities of the fueloil industry, consistent with applicable laws, be consolidated under one national organization.

2. That the organization be newly constituted, under proper controls, with equality of representation, adequate financing and strong direction. *It is recognized, and most important, that voting rights and the control of funds under such an organization should be proportionate to the contributions of the various groups.*

3. That the name of the organization be meaningful and convey the implications of an over-all industry effort.

4. That this organization be established and in business as early in 1960 as is possible. The dissolving of other groups now engaged in various phases of the industry effort should be carefully coordinated with such action, however nothing should be allowed to interfere with the present activities of existing groups, such as National Fueloil Council and the API research activity while an orderly transition is being arranged.

The report containing these recommendations was considered and debated at length, after which the following two resolutions were passed by the majority of the API Fueloil Committee:

API Resolutions

The first resolution was:

"Resolved that the Fueloil Committee of API approve the concept of a new organization unifying, if possible, all the activities of various groups interested in oil heat as soon as possible."

The second resolution was:

"Resolved that the Fueloil Committee of API approve the concept of the organization defined by the Marshman Committee, particularly as outlined in recommendations 1, 2, 3 and 4 of the committee report, amending recommendation #4 so as to eliminate specific reference of 'as early in 1960 as is possible' and substituting the words 'as soon as possible.' And further that the Marshman Committee continue to explore the possibility of a new organization, such as Oil Heat Institute, as the organization which will coordinate all phases and activities toward the future of oil heat."

It should be recognized that under the resolutions adopted no organization takes over another—rather various organizations now in existence would be urged to bring their activities into the new organization.

Industry Benefits

Some of the important benefits which would accrue from having one fueloil industry organization would seem to be as follows:

1. A stronger, more unified, more effective industry effort would result which would help us to save and expand the distillate market.
2. We would achieve improved communications.
3. We would save time.
4. We would save money.
5. We would eliminate confusion and duplication.
6. We would secure greater support and participation from a larger number of companies.
7. We would accomplish what the great majority of the industry desires.

I hope we all appreciate the significance of the two resolutions passed by the Fueloil Committee at Excelsior Springs. However, we must recognize that a big task lies ahead in putting this one new organization into being.

It would seem that the Promotional Subcommittee's next efforts should be along the lines of the following:

1. Sharpen up and bring into better focus a proposed organization including the estimated cost of such an organization.
2. Contact each of the organizations now actively engaged in various activities, acquaint them with the proposal and solicit their participation.
3. Invite representatives of these various organizations to work with the committee in establishing a Constitution and By-laws under which such an organization would operate.

May I re-emphasize the following:

a. Nothing must interfere with the activities now going on, particularly those of National Fueloil Council and the API Research Committee. New refiner members should join National Fueloil Council now in order that they can be doing their share in this important industry effort.

b. Voting rights and control of funds in the new organization must be on a basis proportionate with one's financial support of the organization.

c. The name Oil Heat Institute is simply a suggestion—it may be that an equally acceptable name will be agreed upon.

d. Even though we start now, it will probably take up to a year to put this new organization on the road.

Your Fueloil Committee urges all of the industry to join in this great step forward. This is not a private club—it is an organization for all who are interested in the fueloil segment.

Other Promotions

Let's take a quick look at what the American Gas Association did in the field of advertising and promotion in the year 1958. They spent $2,577,000 for a national television program and $2,337,000 for other national advertising and sales promotion. A total of about $5,000,000. We understand that over one-half of this sum was for the promotion of gas heating. And here is how they feel about this activity, as taken from their annual report: "Today, I think it is agreed that the PAR Plan of Promotion, Advertising, Research and Public Information, put into effect on both national and local levels, has contributed more than any other major factor to the swift and steady postwar growth of the gas industry."

The Fueloil Committee feels optimistic that the new national organization, which we have been looking toward for years, can do for us what the American Gas Association has done for the gas industry, the Asphalt Institute has done on behalf of its industry, and the Iron and Steel Institute has accomplished on behalf of its membership. We need your full support as we take steps to make our plan a reality.

The Minner Report

THE IDEA FOR ESTABLISHING a Research Committee was first conceived by your Fueloil Committee at its meeting in Mobile in May of 1958, and the membership of the Committee was set up a few days later during the meeting of the General Committee in New Orleans.

Minner

By November of 1958 a report was ready for presentation to the General Committee at its meeting in Chicago, and included in this report were the following specific recommendations:

1. The development of a research plan for improving existing fueloil burning equipment now is vital to the future of oilheating and to the profits of the petroleum industry. API with its position of respect and availability of funds must take this leadership.

2. This plan must be implemented by a highly qualified consultant retained to work with the Fueloil Committee of API starting January 1, 1959, for one year. At the end of one year, this consultant will make recommendations for the development of a research program to be conducted by such central fueloil promotion organization as may be recommended by the Marshman Subcommittee now studying the matter.

Funds for the study in the amount of $75,000 were requested and approved by the General Committee and the API Board of Directors.

We immediately established the following Technical Advisory Group to the Research Committee:

C. J. Livingstone, Gulf Oil Corp., Pittsburgh, Pa. (Chairman);

J. C. Geneisse, The Atlantic Refining Co., Philadelphia, Pa.;

W. F. Hergrueter, Socony Mobil Company Laboratory, Brooklyn, N. Y.;

William Kaplan, American Oil Company, New York, N. Y.;

R. D. Pinkerton, Sinclair Research Laboratories, Harvey, Ill.;

W. A. Sullivan, Shell Oil Company, New York, N. Y.;

Robert L. Weeks, Esso Standard Oil Company, New York, N. Y.

Specifically, these technical men were to assist us in:

a. Selecting the Consultant;

b. Determining the areas in which the Consultant might work with greatest promise of results;

c. Assisting the Consultant in gathering, as well as making proper distribution of, all pertinent and helpful information; and,

d. Reviewing and evaluating reports and recommendations made by the Consultant.

This Technical Advisory Group has done yeoman service, and they are to be highly congratulated for their efforts and speed of action.

By March 15th of this year, active work had started on the Research Program.

Without going into details of the problems involved, the Battelle Memorial Institute of Columbus, Ohio, was selected to do the study of our Research Program. Battelle are well qualified to do our job. They have a staff of over 2,500 technical people with complete laboratory and library facilities. The scope of their activities ranges from fundamental research to product development and manufacturing process design. They employ specialists experienced in most scientific and industrial fields.

Research Appointment

And more important to us, they had in their organization just the right man for our work—Dave Locklin, of their Mechanical Engineering Department. Dave has had plenty of experience both in combustion research on fueloils and in the development of oilburning equipment. His experience includes eight years with the Timken-Silent Automatic Division in the areas of research, development, design manufacturing, and field service liaison in connection with oilfired residential heating equipment. In addition to the administration of research and development projects, he has had experience in working cooperatively with major oil companies and various other segments of the oilheating industry. He has been active in affairs of the Oil Heat Institute and has served two terms as vice-chairman of its Technical Division.

Battelle have assigned Dave to full time on our Research Program and he is responsible for the conduct and coordination of the study. Other Battelle specialists in combustion and other allied fields are available to him for any consultation or activities he deems necessary.

Their study, leading to the formulation of an oilburner research program, is being carried out in four phases:

1. A survey and appraisal is being made of current research activities in fueloil combustion and oilburner development.

2. Various new concepts are being studied with a view to their application to residential oilburners.

3. An industry-wide research program will be recommended for the purpose of carrying out the objectives of the API Fueloil Committee; and,

4. Interest in various concepts and developments will be stimulated to expedite the initiation and coordination of further research.

First Report

Wherein practical, these phases are being carried out concurrently during the course of the study.

Locklin made his first report on Monday of this week (May 25) before the Fueloil Committee meeting at Excelsior Springs, and copies of this report are available to all members of the General Committee. I am sure you will find it interesting reading. It covers the first phase of the over-all study.

I should like to highlight a few of the more important points of their first report.

"The interest in the program and spirit of cooperation shown by personnel in all these organizations have been of important assistance in the conduct of the study."

Also the statement:

"Further, there is within the industry both willingness and capability for productive participation in a coordinated research program directed toward the objectives of the API Fueloil Committee."

On the important matter of cooperation the report states:

"All of the oil refining companies contacted to date have agreed to a measure of central coordination of their burner research activities, outside the field of fueloil quality. Furthermore, several companies have expressed willingness to commit research time in their laboratories to assist in this API program. It is apparent that this participation will continue to increase and will strengthen the efforts towards accomplishing the objectives of the API Fueloil Committee."

Certainly, as an outgrowth of the Battelle study it doesn't take too much vision to see ahead a great Cooperative Research Program for oil heat similar to the present Coordinated Research Council, the joint effort set up by API and SAE early during the war period. We all know the excellent results of this cooperative endeavor. And the oil heat program can be even more effective, because of the product involved—there will be more willingness on the part of the research departments of the various companies for greater cooperation. When we get all these facilities and personnel combined in one big effort, and supervised to avoid overlapping, we will definitely obtain results—not dreamed of today.

Second Report

Locklin of Battelle is working closely with the Technical Advisory Group and has scheduled a second report of progress for presentation at the November meeting in Chicago. We have made real headway in the past six months, and you can look forward to a crystallization of the study when you receive our next report.

Before I conclude this report, I would like to make a few comments on the over-all activities concerning oil heat, i.e., the Research Program, NFC, OHI. You have heard Mr. Marshman's report concerning the necessity for establishing a new central organization to include all promotional efforts for oil heat into a single body. There is no question as to the desirability of such a move. A consolidation of all efforts into one organization, let's say, similar to the Asphalt Institute, is obvious to anyone interested in promoting oil heat.

When the $75,000 authorization was granted last November for the Research study, this was the first time in the history of API that something concrete was done to promote the market for oil heat. And I should know, because I've been a member of the Fueloil Committee since it was originally established at the Cincinnati meeting in May, 1951.

When one reflects upon the huge sums of money that have been expended over the many years either by API directly or by other industry organizations in the promotion and research of other products, i.e., gasoline, lubricating oils, asphalt, and LP-gas, I know that a few of you will feel as I do about a product in our line which is second only to gasoline in volume and revenue. Yes, just downright ashamed of the lack of interest by the refiners in promoting the market for the intermediate products. It is my view that without the support we received this past year from API in this Research Study, we would have little chance of recovery from the competition we are getting from natural gas. We now feel we have a fair chance, but, believe me, a lot of hard work lies ahead. I'm not talking about the paltry sum of $75,000 that was authorized for the research study. No, I'm not talking about the amount of money involved, but instead, the psychological effect such action has had upon the great number of jobbers, dealers, and others who are on the firing line fighting the battle against natural gas.

Demand Builders

These are the men who have during the past 30 years built the large heating oil demand for the refiners, and today it is a $3-billion business. And let me add, that in the building of this business by the sale of the domestic burner and in the servicing requirements, few, if any, of these dealers ever made much of a profit from this part of their business. Nevertheless, they continued in their efforts to generate new business for the refiners. Their work until recent years has been highly successful as evidenced by the large yearly increase in the demand for heating oils.

Then, what happened: fierce competition from natural gas spread to every section of the country where the large actual and potential markets for heating oil existed. And what did the oil refiners do to save this large profitable market for themselves and for the jobbers and dealers who created the business? Again, I say shamefully—practically nothing. Only in the Northwest states was some action taken before the introduction of natural gas, and in all the territory East-of-the-Rockies we sat by and idly watched this competitor take all the business he could handle—limited only by the amount of natural gas that was made available through transmission lines and city mains. In establishing this consumer demand for natural gas they spent huge sums of money in promotion and research.

Enthusiasm revives

Within the past year we who are close to the heating oil business are daily seeing a revival of enthusiasm by the dealers and jobbers in many sections of the country. They have the feeling that at long last at least a few of the refiners have decided to stop talking about the situation and have started to take action. This renewed enthusiasm has been brought about by two actions:

1. The decision last November by API to assume the leadership and to sponsor for one year the study of a Research Program.

2. The creation of the National Fueloil Council by nine refiners, whose financial support has made possible a much greater promotional effort in the local markets during 1959.

The example cited by Len Marshman of the fund raising activity in the Boston market is an indication of this spirit of enthusiasm created at the field level. I am sure you will say that this is amazing, but it's a fact, and is a true indication of what can be expected: — why — because these men have waited so long for action by their suppliers they are not going to pass up this opportunity to show us what they are capable of doing.

Another example was the formation, since our meeting last May in

(*Please turn to page* 104)

Boston plays Host

Eastern oilheating Exposition highlighted by two Days of management Clinics

A SUCCESSFUL four-day 1959 Biennial Eastern Exposition of Oil Heat and Airconditioning ended on June 5, having achieved a registration of more than 3,500 oilheating industry people.

The Exposition, sponsored every other year by the Oil Heat Institute of New England, occupied the mezzanine floor of the Statler Hilton Hotel in Boston, where more than 100 companies exhibited a variety of oilburners, oilfired units, accessory equipment and oil delivery products.

The particularly attractive setting for the booths greatly enhanced their appeal and the exhibitors generally were favorably impressed by the interest shown by the fueloil and oilheating dealers who visited them. A large proportion of the booths featured oilburners and oilfired units, with a major manufacturer announcing a complete new line of oilfired furnace units during the show. An executive of the company explained during a conference which introduced the new units that their development was indicative of his company's confidence in the future of oilheating.

Management Clinics

A highlight of the show week for dealers was two days of management clinics held at the nearby Sheraton-Plaza Hotel, sponsored by the Distribution Division of the Oil-Heat Institute of America. A total of 450 attended the sessions, listened to 17 speakers and participated in spirited question and answer periods.

The topics and speakers were divided into two groups. The first on June 3 covered the field of credit, accounting, insurance and office management procedures. Everett Elliott, vice-chairman for the East, Distribution Division, OHI, and treasurer, C. L. Elliott Co., Danvers, Mass., was moderator.

The second day's session covered the field of sales, sales promotion and sales management, with T. R. Loizeaux, Sr., national Chairman, OHI Distribution Division, and president, T. R. Loizeaux Fuel Co., Plainfield, N. J., presiding.

Both sessions were particularly rewarding for the dealer audience, presenting as they did the actual experience of experts who either reported how they improved their business operating efficiency or advised how proven business practices could assist the fueloil-oilheating dealer to make more money.

Here we present some of the highlights of the credit and accounting session, which opened with a talk by John J. Canavan, Sr., manager of the Credit Bureau of Greater Boston, Inc.

Consumer Credit

He observed that fueloil dealers actually are competing with the "Go now and pay later" theme as well as a variety of other consumer credit plans. His advice was that each dealer improve what might be the sad state of his accounts receivable by formulating a credit plan in writing and reviewing it regularly to be sure it still covers the situation properly.

He pointed out that 95% of the consumers use credit in one form or another; they are used to and expect it. Therefore, it follows that fueloil dealers would do well to link improved credit plans with improved sales and consumer education programs.

Canavan emphasized how beneficial membership in local credit bureaus can be and urged more fueloil dealer participation. He stated that the most successful retail operations today are those who refuse to accept new accounts until they are cleared through the local credit bureau.

The subject of liability insurance was discussed by C. Allan Dietrich, Jr., The Key Agency, Newark, N. J., who observed that probably 90% of the fueloil dealers do not have proper insurance. He explained that the usual contractors liability insurance was not completely adequate unless it was supplemented with independent contractor coverage to offer protection on sub-contract work. Also, Dietrich said, fueloil dealers require products and completed operations coverage in case of claims for smoke and soot damage. Finally, degree-day insurance adds protection against run-outs and subsequent claims for damages that might result.

Dietrich told the fueloil dealers that their own insurance company or agent should be able to advise them what coverage is needed and review what coverage they now receive under present policies.

Another speaker, Julian Ross Greene, certified public accountant, Baltimore, spoke on cooperative industry cost control for heating oil distributors. His talk is reproduced elsewhere in this issue. (See page 51.)

Public Relations

A fourth speaker, Albert C. Cater, general manager, Home Oil Co. and executive secretary, OHI of Buffalo, discussed credit from the standpoint of company public relations. He likened fueloil distribution to a credit business and observed, "If we don't keep our customers satisfied, we gain nothing if we lose a customer and pick up another from some other source."

He emphasized the importance of a dealer's credit people understanding the company sales objectives. Cater feels it is particularly important to "work out any gripes" and take lots of time to talk with customers who are delinquent in their payments. Learn about them and their problems, convey genuine interest and concern in their situation and you won't have to worry about losing them to competition. Furthermore, because the customer is convinced you are sympathetic, Cater concluded, he'll be more apt to pay up as he is able and the fueloil dealer has added a satisfied customer—the best way in the world to build business.

Irving Koval, president, Rochester Oil Burning Systems, Rochester, N. Y., discussed a topic somewhat new to oilheating dealer management clin-

ics. He talked about the wholesaler and rebuilder's relations with the fuel-oil distributor.

He described the role of the wholesaler and emphasized his function as part of a working team to eliminate inferior products. Koval pointed out the wholesaler provides credit on a personalized basis, he disseminates servicing and installation information, encourages analytical rather than substitute method of servicing and rescues the dealer from the perils of hidden costs of inventory maintenance.

Summarizing, Koval listed these facilities, services and attitudes that a wholesaler and rebuilder provides:

Adequate stocks of supplies; elimi-

nation of inferior products; good delivery service; make it unnecessary for dealers to tie up capital in large inventories; eliminate the hiring of additional personnel to take care of stock and inventory; eliminate risks of a fluctuating market; eliminate pilferage and neglect; reduce many insurance expenses; good credit relationship; help to train and provide information for service and installation men; continually look for new items and materials; maintain reasonable prices; anticipate the dealer's needs four to six months in advance.

Final speaker at this session was Walter McElfish, general manager, H. M. Stauffer & Son, Inc., Lancaster, Pa., who told how improvements in fueloil delivery and office procedures helped his business. In February 1953, he said, the company was achieving an output of 425 gallons per man hour; this increased successively to 740 gals. by January 1956, to 960 gals. by January 1958 and reached 1,140 gals. during December 1958.

The results were gained after a careful time study of the delivery operation and introduction of a driver incentive plan. Under this plan, the driver makes four deliveries or more than 600 gals. per hour to qualify. Then he's paid a bonus for the entire day or a bonus on gallons deliveries, whichever is higher. This is in addition to his base pay.

Pumping speed was increased to lessen the time the driver spent at the customer's fill pipe. This alone made possible three more deliveries per day. A 2,500 gal. truck with duplicate pumping equipment was added to contribute to more efficient delivery.

Also, the office procedures were studied and an accounting machine was purchased. This step alone reduced to seven the former 27 operations required to handle a fueloil delivery.

The fueloil truck driver receives a coded, pre-addressed delivery ticket—the code tells him all he needs to know about the tank he is to fill. He does not price the ticket nor deliver it to the door.

An important benefit gained from installation of the accounting machine, McElfish pointed out, is the ability to come up with a monthly statement at the close of business at the end of the month. Before, the statement took several days to prepare and didn't include the last ten days of the month.

This has resulted in an improved accounts receivable position; for the past four months of 1958, for example, accounts receivable on the tenth of the month dropped successively from 106% of the previous month's sales to 55% of the previous month's sales.

McElfish stated that his drivers serve 900 customers, against a national average of 341, and, that except for short periods during extreme cold weather, he's operating with one less truck than he formerly required. Appreciate the value of fine drivers, though, he cautioned, and give them credit for the good job that they do.

He concluded with the observation that changes and improvements in their business operation have increased operating efficiency while keeping operational costs to a minimum.

Cooperative cost Control

A properly organized Program allows fueloil Distributors to talk a common Language

by J. R. Greene*

MY NAMESAKE Julius Caesar wrote that immortal phrase, "All Gaul is divided into three parts, . . .".

The heating oil distribution industry also is roughly divided into three parts; integrated suppliers, jobbers and dealers.

From what I have been able to see of each of these three industry groups, gall is still divided into three parts.

In this era of scientific management and in the face of the many complex problems with which the industry must contend, the industry as a whole has the consummate gall to operate without true knowledge of its operating costs either individually or collectively.

Of the three basic industry groups the National Oil Jobbers Council has taken the most positive steps in attempting to eradicate this deficiency. They have formed an accounting committee, have established an excellent uniform accounting method and reporting procedure, and have developed the first truly representative industry costs reported by an industry group.

Their efforts have been hampered by meagre returns from the individual jobbers.

Until the individual jobber, the individual dealer and the individual supplier can understand first what industry costs are, and second what a truly sharp-edged management tool the knowledge of costs is, it is unlikely that industry participation in such programs will improve.

Almost every effort to obtain such information has been stopped or emasculated by the failure or inability of individual firms to participate.

For this reason, I am going to make an appeal to your reason in an attempt to illustrate to you that such a program is not only possible and desirable, but that it will help maintain the economic health of your individual firms and of the industry as a whole.

As a result of my retention by the Oil Heat Association of Maryland to develop such a program for that marketing area, I have done some missionary work in the field in these respects. I would like to talk about some of the misconceptions I have found in the minds of responsible executives such as yourselves with respect to accounting and cost systems.

On occasion, I have been invited to examine "New Accounting Systems" installed by companies within the industry.

These "New Accounting Systems" so called have been nothing more and nothing less than excellent accounts

*Consultant, C.P.A., Baltimore, Md. Talk for Eastern Regional Management Clinic, Boston, June 3.

receivable records and procedures. They are, typically, a modern bookkeeping machine, a system of loose-leaf card ledgers for accounts receivable, automatic computation of degree-day of next delivery, and some method of pre-addressing delivery tickets. The procedural system may also include automatic extension and pricing of sales invoices.

All of these things are excellent in themselves. I recommend them for your immediate investigation if you do not already enjoy them in use. They do not constitute an accounting system. They are an accounts receivable system and related operational procedures.

An accounting system involves the recording of every transaction that occurs in the daily life of your business; every dollar you invest, every dollar you receive, every dollar you spend, every promise to pay you receive from others, every promise you make to pay others, accrued liabilities for taxes, interest and other items you know will become due at a later date, prepaid expenses you have paid in advance such as a three or five year insurance

premium and many other items of a technical nature and description.

Your accounting system records all these items, not just sales, accounts receivable with customers and cash receipts. These are an important part of your accounting system, but they are only three accounts out of the normal schedule of accounts which should be in your books and which may total 200 accounts or more without being in any way unusual or excessive.

These accounts are in groups known as current assets, fixed assets (and related depreciation reserves), other assets and deferred charges, current liabilities, fixed liabilities, other liabilities and reserves, capital investment, undistributed profits, sales and other income, merchandise purchases, and operating expenses.

In seeking uniform accounting methods to establish acceptable standards of industry costs we are concerned primarily but not exclusively with one category of accounts, your operating expenses.

Same Meaning

A uniform system of accounts in this area, so that "delivery expense" for instance means exactly the same group of expenditures to all members of the trade, is what is involved in a uniform "accounting system" for purposes of cost control.

In other words, if every distributor charges his expenditures for similar items of expense to an agreed place within his schedule of accounts, he will be talking a common cost language with each other distributor.

Now let's take the phrase "operating costs."

On many occasions, in discussing operating costs with distributors I have been told, "Certainly I know what my costs are. My accountant makes up a complete annual report. I know exactly what my net profit is."

It turns out on further examination that the cost known is the total cost of operations which enters into the classical mathematical formula which says, "Income minus outgo equals outcome."

The total of cost which enters into this formula is obtained by use of

J. R. Greene

omnibus expense accounts containing many mixed elements of expense relating to more than one function of the business. For instance, it is a common occurrence that all vehicular expense such as repairs, licenses, gasoline & oil, tires, supplies, parts, etc., etc., be thrown into one omnibus account known as "Auto & Truck Expense." Not only are these various types of expenses combined, but into this same account go the expenses of fueloil delivery trucks, installation stake body trucks and vans, service trucks, salesmen's cars and officials' cars.

When you ask simple questions of a distributor having books of this type, such as, "What was the gasoline expense per gallon of fueloil delivered for your delivery trucks last year?", he is unable to answer and therefore cannot participate in a detailed industry cost survey. Equally important, he does not know for his own purposes of judgement as to the efficiency of various types of delivery vehicles.

It is not unusual to find all operating salaries and wages aside from officers' and office in one expense account so that even the cost of drivers' wages per gallon delivered cannot be determined without subsequent analysis.

In such cases as these, the expense accounts are described in good accounting terminology, and will properly show the net profit earned, but they tell you practically nothing about the true nature of your operating costs in the content of such costs.

Let me convince you of the importance of knowing the true content of cost with a few examples taken from actual situations which have developed in the use of uniform accounting systems and the knowledge and comparisons of cost.

Operating under the uniform accounting and reporting procedures, we found that one distributor had a cost of drivers wages of 9/10ths cent per gallon and another of 4/10th cent per gallon.

Does the half-cent differential interest you? Is it conceivable to you that such situations can occur?

Under a uniform reporting method we can analyze and look for the gimmick if there is one. Here are the significant relationships.

Drivers' wages, 90 points against 40 points.

Drivers' incentive for production, nothing against 6 points.

This is the first gimmick, and it makes the comparison begin to seem more understandable. The totals are now 90 points against 46 points.

The next item is driver supervision and degree-day function, totaling 18 points against 38 points. Aha! the second gimmick! What are the totals now? They are 108 points against 84 points.

Same Expense

Let's check one which ought to be normal, gasoline expense. Nine points against 9 points. Absolutely no difference. Now the totals are 117 points against 93 points.

There is one final item, radio communication, nothing against 3 points. Total of these items for the high wage cost, 117 points; for the low wage cost 96 points, a net savings in direct operating costs of 21 points.

After including all of the items in the delivery expense category under the uniform method, the total delivery cost of the first distributor is 1.37¢ per gallon against 1.00¢ per gallon for the second, a net savings of 37 points because of the other reductions in expense such as social security taxes, compensation insurance and fringe benefits which are directly related to wages paid to the drivers.

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Replacements build Goodwill

Measurable customer Satisfaction results from Chapin-Nichols' modernization Efforts

by William J. Stein

CHAPIN-NICHOLS, Inc., Reading, Mass., has been in the heating equipment and fueloil business for a long time. In recent years one of their major problems has been the replacement of oilburners and heating equipment originally installed years ago. To illustrate this Paul Rimbach, general manager, pulled out an old full page advertisement placed in the local newspaper in 1923 by E. H. Chapin who was then advertising and selling the Nokol Oil Burner for the Lowell Heating Co. Rimbach explained that he finally replaced the last of these Nokol burners about seven years ago.

Although no Nokol burners were in use locally, Rimbach felt that there certainly was other equipment still in use which was not much newer than Nokol. As evidence of this he pointed to the total of approximately 100 replacements of burners and units in each of the past few years.

Although this made some contribution to his 2,000 fuel accounts, he still feels that he should do better. His major obstacle has been obtaining and training salesmen who could properly cope with this situation. Rimbach feels that a homeowner who has an old burner is not necessarily easily convinced that he really needs new equipment. It entails a degree of trained salesmanship to get a prospect sold on modernizing his oilheating equipment.

Rimbach has not found it difficult to locate the inefficient burners. Now, he's concerned with development of a sales organization to follow the leads to eliminate all the inefficient heating equipment and elevate oilheating in his area to the position it deserves as a modern fuel.

An appraisal of the replacement market in the Reading area revealed that there were many pre-war burners in operation. Some of these burners which have been in operation 25 years, certainly can stand modernization and replacement. During the five year period following the war there was a high rate of conversion work. Unfortunately, during this period of relative scarcity, anything that looked like an oilburner was used. Rimbach felt that for the sake of maintaining the reputation of the fueloil industry in his community this equipment should also be modernized or replaced.

Similarly, even within the last few years some contractors were using poor equipment or making inefficient installations, especially in home development projects. Such work caused the false impression that fueloil was costly, noisy, ineffective and unclean.

Rimbach very conservatively estimated that 25% of the fueloil users in his area needed some replacement or modernization work done on their heating equipment. To illustrate some of the procedures followed by Chapin-Nichols to obtain leads for customers who might be dissatisfied with oilheating, Rimbach produced the following letter sent to his 2,000 customers:

"Will you help us with a problem?

"Taking inventory is a yearly proposition with every company. This year we are very anxious to take inventory of our most important asset—

"What you think of us.

"This involves our burner and heating service, oil deliveries, budget plan, service contract, and all other services.

"It will be a tremendous help if you will take a minute to check the enclosed card; or to write us a letter outlining any suggestions to help us improve our services to you.

"If you have any problems that we can straighten out for you, let us know about them.

"Thank you for your patronage and for your help.

"Best regards,
"Paul Rimbach"

This was accompanied by the following reply card:

"Will You Help Us to Help You?
"Would you recommend our service to others?... Yes No
"Do you find our oil deliveries satisfactory?..... Yes No
"Are you satisfied with your heating? ..... Yes No
"How can we help you better?
Name
Address
City
Tel. No."

There were 600 returns. Of this 10%, or 60 accounts, had some sug-

gestion to make relating to their heating; 36 of these suggestions could be considered an expression of dissatisfaction with their present method of heating. Involving the customers in a cooperative evaluation program had the psychological effect of developing a closer tie between customer and supplier in this suburban community. It also served the purpose of demonstrating to the customer that Chapin-Nichols had sufficient self-confidence to invite suggestions. Most important, it revealed the marginal customer who felt that oil heat was lacking in some desirable quality.

An investigation of the returns revealed that the last category of customers (36 who expressed dissatisfaction) were home-owners who generally were having trouble with their oilheating equipment. Moreover, these people recognized this situation and were sufficiently concerned to make a reply in writing. Therefore, it was determined that these people represented a fertile group who could be persuaded to modernize their oilburners. Conversely, Rimbach also indicated that if these people did not have their equipment corrected very soon they would be susceptible to gas.

Chapin-Nichols, Reading, Mass., was concerned enough about reaction to inefficient oilheating equipment to survey their customers. From it they located some customers who were dissatisfied and have set a goal of curing this condition. One remedy, of course, is replacement of the equipment if it's old and inefficient. But, Chapin-Nichols finds that the new home also can be a source of profitable modernization work for the dealer and simultaneous newly-found oilheating satisfaction for the customer.

The relatively new home also should not be overlooked as a source for modernization and replacement. Through its service department Chapin-Nichols learned of several new homes, with newly installed oilheating equipment that were burning considerably more oil than necessary. A letter addressed to the owners of approximately 100 of these homes was sent by Rimbach wherein he urged these owners to replace their burners and guaranteed a 25% fuel saving if his firm serviced the new equipment and supplied the oil.

This small effort resulted in six burner replacements, all of which worked out very well. The remaining homes represent a pool of potential replacements, which will again be canvassed. The six successful jobs in this development will serve as an additional advertisement.

The aim, of course, in this work is to provide efficient heating, thereby assuring the continued use of fueloil. The activities are carried on in addition to the routine reports of the servicemen. Chapin-Nichols employs four independent service contractors who perform about 1,600 overhauls a year. During the course of this work they report installations whose efficiency cannot be improved without a complete modernization or replacement. This is followed up with the usual surveys and convincing sales work.

Generally speaking Chapin-Nichol's work falls into two categories. In the first category, where they are replacing boilers and burners that are too old to be modernized, they have been using Winkler equipment with a high degree of satisfaction.

In the second category, where they deal with relatively new equipment, an attempt is made to salvage the present burner with a modernization program. If the combustion chamber is inefficient or defective, it is replaced at a cost of $40. The burner is removed and re-constructed with a Boston Machine Co. combustion head, at a cost of $60. This work, together with some other minor adjustments, considerably improves the operation of the heating equipment.

Chapin-Nichols has found that a modernization program satisfies both the supplier and the customer by reducing oil consumption, providing comfortable heat, and making more secure customers.

Rimbach concluded his remarks by pointing out that the fueloil business is now going through a cycle wherein it must recognize the crying need for modernization and replacement as an integral part of its operations.

Paul Rimbach, general manager, Chapin-Nichols, Inc., Reading, Mass.

How and why We service Burners

Dalton Coal & Supply sensed the customer Satisfaction It gives and added burner Service

by Bill Allman*

IN THE SPRING of 1953 at the Oil Heat Institute meeting, Hollis Albert, prominent fueloil dealer from Baltimore, asked me how our service department was doing. We were standing at a hotel bar when the conversation took place and I told him we didn't have a service department. And I went on to explain, in Gary the plumbers and sheet metal men do the installing and servicing of oilburners. We—Dalton Coal & Supply—sell the fueloil, and, I wound up a little smugly, "We like it that way."

Hollis looked at me, tapped me on the chest and said, "Look, I don't know just how soon it will be, but you're going to be in the oilburner service business."

I asked him, "Why?", and he said, "Watch."

He turned to the bartender and found out that he burned oil in his home. "Who delivers your fueloil," Hollis asked him.

"Knickerbocker," replied the bartender.

"Whose oil is it?" was the next question.

"I don't know," said the bartender, "and I don't care too much. I buy from Knickerbocker because I get the best oilburner service."

Hollis just looked at me with a knowing look.

When I got back to Gary, Dalton Coal & Supply took a hard look at the local oilburner service situation. We found out a number of things.

For example, it became apparent that the heating dealers simply could not afford an oilburner service department; they just didn't have enough customers to fight the battle of oilburner service and make it pay. In addition, there were a lot of fueloil customers who did not have access to a dealer who was servicing burner equipment. Their former dealers might have sold out or gone out of business, but in any event, their equipment was "orphaned."

These two groups of customers—to whom we were selling fueloil—were not being taken care of insofar as their oilburner service needs were concerned. It seemed pretty obvious to us, therefore, that these people would continue to buy fueloil from a company if it provided them with satisfactory burner service. We decided to take a longer and a harder look.

In Gary we had at the time a very competent heating service business, Blake Heating Service. We talked with Don Blake, the owner, and convinced him that he could do much more in oilburner service working with Dalton as service manager than he could by continuing in business for himself. He agreed, we acquired his company in August that same year and we were in the oilburner service business.

As far as we are concerned, the oilburner service department is a vital, life-insuring addition to our fueloil business. When heating equipment dealers are responsible for service, they have no interest whatsoever in retaining homeowners as fueloil customers. If they run into any difficult service problems, more than likely they'll be ready to sell the customer a piece of equipment using another fuel. We were convinced that it was up to us and to us alone to keep our customers happy and the addition of burner service seemed a logical way to do so.

So, there's the "Why" of getting into oilburner service. Now let's look at the "How."

First, hire a service manager who knows the business; he has to know vaporizing as well as high pressure burners in our area and he certainly should be able to handle service problems with the Oil-O-Matics, Timkens, G-E's, Winklers and any other of the so-called special burners. Of almost equal importance, your service manager should be the kind of a man who is technically curious so that he acquires knowledge with the ability to pass it on to the servicemen.

Second, I would recommend that you avoid hiring "experienced servicemen." We found that the "experienced" men available to us knew so many shortcuts and cute ways of doing things that we found it difficult to get good performance from them. So, we hired new men who had an understanding of electrical principles and could read wiring diagrams. We

Don Blake (left) trained these men to maintain high service standards.

*Vice-president, Dalton Coal & Supply Co., Gary, Ind. Based on presentation made at Dealer Management Clinic during OHI of America's annual convention, Seattle.

brought them in and Don Blake trained them the way we wanted them trained and now they do the job we want them to do.

The next thing we did was to sign a guaranteed annual labor contract with each man to avoid the headaches resulting from tempting offers made by local service companies—usually in September. Each man signs a new contract with us on March 15, assuring him 52 weeks work. To illustrate that this has solved the problem of keeping our men, the newest of the eight servicemen we have has been with us for three years.

My fourth recommendation would be to establish and offer as quickly as possible an annual service policy. It is an important step in making your service business a paying proposition. As far as we are concerned, the service policy has enabled us, for one thing, to schedule furnace cleaning jobs all through the year, which helps spread out the work load for our servicemen.

Fifth, install two-way radio in your service cars. There are several obvious advantages to this arrangement, of course, but we've found it particularly helpful in that it enables a serviceman to leave a home, go to his truck and talk by radio with the service manager. Then, if he has run up against a technical problem that puzzles him, he can discuss it without the customer being aware of his difficulty.

Another important item is the absolute necessity to provide for intelligent order-taking over the telephone. Getting the trouble pin-pointed quickly is most helpful and often it is possible to eliminate unnecessary service calls with a few pertinent questions.

A seventh point—use big enough trucks for your service work. We switched over to the Metro style body, because we feel that when a man goes on a call, the bigger assortment of parts he has with him, the more likely he is to complete the call while he is there. Each of our trucks carries a $1,700 inventory of parts.

The eighth item to watch is to be sure that your men are neat and clean at all times. By all means put them in uniform, give them a look of competence.

Dalton Coal & Supply Co.

Bill Allman of Dalton Coal & Supply, Gary, Ind., told at the Seattle meeting of the Oil-Heat Institute of America why his company went into the burner service business. In Gary there are some 50 separate companies selling fueloil, but of the larger companies only three have service departments. It's typical for heating contractors and plumbers to handle the service, and, as Allman put it, Dalton realized that this wasn't in the best interest of the customer or the fueloil dealer. The accompanying text is based on Allman's presentation at Seattle.

Dalton has been in the coal business since 1909, three years after Gary was founded. The company has been in the oil business since 1927 and handled Shell products unbranded until 1946. It maintains 436,000 gallons of bulk storage, 210,000 gals. for No. 2 oil, 100,000 for No. 5 and the balance No. 1.

For the past two years the company has sold Oil-O-Matic oilburning equipment at wholesale, but it does not get into direct retail sales. Dalton operates in Gary proper, has more than 6,000 fueloil customers, with 1,200 on service contracts. These sell for $23.50 to cover everything except the tank. Dalton operates 12 fueloil trucks, nine of which are semi-trailers, plus a 7,600 gal. transport which operates between the bulk plant and the refinery seven miles away.

Company officers are: William Moore, president; Charles S. Moore, vice-president and treasurer; William E. Allman, vice-president.

Now, how does all this work for us. Well, in Gary we have about 16 different contractors and heating oil dealers for whom we do service work. The heating contractor has no service department; he doesn't want to be bothered with it. So, we do his service work and charge him $18 in the case of a new installation. For this we start and adjust the burner and provide the service required for the first year. The contractor carries the warranty on parts.

More recently, we added a wholesale equipment department to our business. We handle the furnace and heating equipment at wholesale only; the contractor installs the equipment and we service it. You can guess who's interested in the fueloil business, and, what's more important to us, who has a pretty good chance of getting it.

You can have any number of gimmicks and ideas on how to get a customer to buy your fueloil, but when you get right down to it the best salesmen you can employ is that big group of satisfied oil heat customers who regard you as their friend. If they go out and tell their neighbors the benefits of trading with you and the benefits of oil heat, that's a convincing presentation, the kind that the people next door will believe.

Our happiest customers are those who have an annual service policy, keep-filled fueloil delivery service and a budget plan to pay for both.

The cost to operate our service department will come to less than $5,000 this year. But, where can you employ 6,000 customers—who actually are our best salesmen—for that kind of money?

Take my advice and take a look at the oilburner situation in your town and among your customers, you might be surprised at what you will find.

Craftsmen in the making

AN INDUSTRY is just as good as its technicians and on this page are some men getting fundamental training in the installation and servicing of oilheating equipment. Massachusetts Trades Schools, Boston, Mass., has been creating craftsmen for the industry since 1953.

Students may enroll for evening classes, day classes during the summer months, or study through correspondence. Those taking the correspondence course are entitled to a two-week period of day resident training at the completion of their home studies.

Typical scene of activity in the school lab with students working on separate projects, ranging from chamber brickwork to taking of a CO_2 reading.

Students are taught correct methods of cutting flue pipes for draft controls.

During a classroom break, information on a low-water cut-off is presented.

Assignments include making a typica tank installation and handling pipe

Above, the men are taught the various phases of assembly and disassembly on oilburners made by different firms.

Instructor supervises group of students as they wire man various domestic heating controls on the mock-up board

Can't talk about Prices?

Officially, no, but as Man to Man, there's a Lot to say

by Craig Shaver

THE TIME has long since passed when people who found themselves with common problems in business can legally get together and talk price. But, human nature being what it is, all the laws which have been passed or ever will be passed can't stop me or anyone else from thinking about price nor has the government, to the best of my knowledge, said that you can't talk about profit. So many silly things are done by ourselves and others under the allegation that they are "necessary" that we have to stop and remind ourselves that there is nothing morally wrong with making a profit in a lawful business.

When margins are long on fueloil, such as they were earlier in 1958, it is always a temptation to get additional business by giving away a part of our profits. This is true of all businesses but it is particularly dangerous in the fueloil business. Why? Because it is a one-product business as compared to a grocery store, for example, where a loss leader can be run with the knowledge that profit on other items will cover it.

Except for new homes and conversions, any additional fueloil business we get must be taken away from our competitors. Now, we use some perfectly ethical ways to get some business away from our competitors but, sad the day, they also use some perfectly ethical ways to get some of our business, too. That's as it should be if the buying public is to be properly served in a competitive economy but let's stop and think for a minute about where we make our money.

Bob Gray of National Fueloil Council puts it as well as anyone and here's about the way he would say it. Do you make any money from your competitor? Hardly! He's not ever going to put one red cent in your pocket. Can your supplier make money for you? No siree! The best he can do is to make it possible for you to make money. Stripped of all its trimmings and down to the bare bones the only person you can make any money on is your customer who buys the fueloil you sell. If this proposition is true (and I haven't been able to blow any holes in it) how do we go about getting more dollars into our pocket at the end of the year. The obvious answer is to get more customers because our customer, again, is the only person we can make any money on. So far so good. How do we go about it?

By far the most effortless way to get a new customer, is to give him a part of our profit but we'd better beware, boys. Before we go through that red light we'd better take a look around and see who else is also waiting for the light and we'll find out that we've got some company. Some of them we recognize. Some are our competitors who, corny as it may sound are friends who believe, fundamentally and sincerely, that they can't help themselves by trying to put us out of business. But we may also see some totally new and strange faces who might have no more compunction about trying to put us out of business than they would have about violating a traffic law. Now if we decide to go through the red light at least some of the others are going to go through too and it's very possible that somebody may have a car that's got a faster getaway than ours. So let's take a look and see what jumping the light might do to our profits.

Suppose we have a million gallons of retail fueloil business and we're selling at a price (and I don't care what the price is) and buying for a price (and, again, I don't care what that price is) that leaves us two-and-a-half cents after we've paid our direct costs of throughput and delivery. We're then going to have $25,000 out of which to pay our office overhead, pay our income taxes, buy our kids shoes and put some groceries on the table, make the mortgage payment on the old homestead and lay up a little something for a rainy day.

Now let's suppose that we decide to give away one-half cent of our profit. We get some more business (at least until somebody decides to go us one better) and everything would be ducky if this new business could be had at two cents without disturbing that nice two and one-half cents profit we had been making on our old customer but, alas, that ain't the way life is. We better damn well treat our old customer the same way we treat our new one or we're going to lose (1) his business (2) his confidence (3) his friendship.

So, as of now, we're doing all our business at two cents instead of two and one-half cents (and don't tell me that our throughput costs will go down enough to make any appreciable difference, 'cause I can show you some figures which say they won't) and we've got some more gallons. How many more gallons? (If we turn around quick we'll see that old guy, "diminishing returns," with a loaded gun pointed at the back of our head) 10%? That's a nice healthy increase for any established business to make in a short time, but it ain't enough. 20%? That's twice as big an increase but it still ain't enough. 25%? Yes siree! That's the magic number and we now deliver 1,250,000 gallons to make the same profit we used to on our million (provided, of course, that we don't have to put up with the bother and expense of putting a lot more receivables on our books).

Now we're really cooking. We've got the volume. But wait a minute—some rascal has now decided that he can do business with less overhead than we can and, by George, he's going to show us where the bear went over the mountain.

So now that lovely two and a half cents, becomes not two cents but one

(*Please turn to page 106*)

Shaver is vice-president, Northwest Petroleum Association; president, Dickey & Shaver, Wayzata, Minn.

On Oil's 100th Birthday
...here's a slice of progress for you!
Convenient oil heat for your home is completely automatic. You never worry about the weather. This is just one of the hundreds of ways in which Oil's first century has made your life easier and happier.
Personally, we're proud of the part we've played in bringing this kind of oil progress to you—here in our own community. And you know what? The best is yet to come!
1959 marks oil's 100th birthday... our birthday, but all America gets the presents!
OIL'S FIRST CENTURY BORN IN FREEDOM WORKING FOR PROGRESS
YOUR NAME HERE
CEN.—29
3 col. x 110 lines
(330 lines)
1859—Home heating the hard way
1959—Oil makes it easy
YOUR PLANT PHOTO HERE
One hundred years of oil progress has made home heating a cinch. Today, with no effort on your part you get efficient, economical oil heat—delivered right to your home.
This is just one of the many ways in which oil's first century has made life easier and better for you.
We're proud to be a part of this wonderful progress. And we join with the rest of oil's men and women in promising —the best is yet to come!
YOUR NAME HERE
OIL'S FIRST CENTURY BORN IN FREEDOM WORKING FOR PROGRESS
CEN.—31
3 Col. x 110 lines
(330 lines)

Oil Centennial Observance

ON AUGUST 27, the United States oil industry will be 100 years old. It was on that date in 1859 that Col. Edwin L. Drake struck oil after drilling 69½ ft. at Titusville, Pa.

The industry is now in the midst of observances and celebrations to mark the date, to be climaxed August 23 to 29 with a week's program in Titusville.

Reproduced at the top of the page is the commemorative 4¢ stamp to be issued to mark the event. Anyone desiring first-day cancellations may send addressed envelopes, together with remittance to cover cost of postage to: First Day Covers Petroleum Industry Stamp, Titusville, Pa. A close-fitting enclosure of postal card thickness should be placed in each envelope and the flap turned in or sealed. Envelopes must be of ordinary letter size and should be properly addressed.

The API has available a series of mats for heating oil dealers to use in local advertising. Two of the mats are reproduced on this page.

On the facing page is a picture of the 24-sheet poster painted by Norman Rockwell, which can also be furnished as a linen-backed poster for exhibits with company imprints.

Information on these and other Oil Centennial materials can be secured from API, 50 West 50th St., New York 20, N. Y.

Here's a Speech for Dealers to use in local Oil Centennial Activities

This speech has been prepared for industry use in connection with the Oil Centennial. Clip it out and put it to work for your own business and for oilheating in your community. Additional copies and other oil heat materials for the Centennial can be secured by writing to the National Fueloil Council, 424 Madison Ave., New York 17, N. Y.

I WONDER whether you have ever thought where we'd be today without petroleum which has so greatly enriched our way of living. We would have no automobiles to drive. No diesel locomotives to haul our trains. No great, oil-powered ships. No oil-generated electricity coming to our homes and factories through power lines. There would be no air transport soaring in the skies, no planes powered by jet engines. We'd be without many, many other petroleum products that provide articles we use every day of our lives—synthetic rubbers, vaselines, waxes, asphalt. The fact is, we all would be very much poorer—we could not have the world we live in today—without oil and its products.

Oil in the modern sense of petroleum gushing from wells drilled down into the earth is only 100 years old. It was first found by a persistent man who had the bright idea of using a system of drilling to tap what was then called "rock oil." Colonel Edwin L. Drake drilled the first petroleum well in history near Titusville, Pennsylvania in 1859—on August 27, to be exact. The well was 69½ feet deep.

One hundred years later, this year, we are celebrating oil's first century. The whole nation is celebrating the good fortune of Colonel Drake's discovery and its benefits to the country with these themes—"Oil—Born in Freedom—Working for Progress."

Today, I'm going to talk about one of the most important products of this century-old wonder liquid, petroleum. This important product contributes more to the national economy, more to the prosperity and welfare of all of us, than almost any other product which comes out of the petroleum barrel. This product has a value of almost $2½ billion annually. It is an essential to the life and well-being of millions of American families. In fact, it provides comfort and healthy living in over 16 million U. S. homes.

Almost without your knowing about it—many of you have never even seen it—quietly, automatically, this product safeguards your families and your homes through cold winters.

Here, let me show you what this product looks like. (Pours clear, bright No. 2 fueloil from an attractive small pitcher or vase into a goblet. Holds it up and shows it around for everyone to see.) Light, bright, clean looking isn't it?—This is modern homeheating oil. That's what you call it. In our business we call it No. 2 fueloil.

Modern heating oil is highly refined in great, shining, complex refineries and in "cracking" plants where hydrogenation and other scientific steps, today, purify and add to its heating values. There is enough heat in one gallon of this heating oil to keep an average house securely warm for many hours.

It's interesting how this surprisingly golden, clear product was slowly developed. It was virtually unknown in the early days of the petroleum century and then overshadowed by earlier oil products such as kerosene for lamps. This liquid—heating oil—became important only because it solved a vital human need. It was a need which had never in human history been satisfactorily solved on a large scale. This need was heating for homes and for buildings—which in most of our Western world is the most important human requirement after food, clothing and shelter. Modern home heating—something which is taken for granted today—was unknown when oil was discovered a century ago.

Americans 100 years ago spent vast amounts of their time and days of grinding work just to keep warm in the winter. Most homes were heated with logs of wood and the only equipment known were fireplaces and stoves. And even when coal came into large use in the latter part of the 1800's, American homeowners had to handle tons of fuel in the winter. People had to keep a constant vigil to maintain fires, along with back-breaking labor.

It was only about 40 years ago that all this began to change in our homes—due to this new product called heating oil and an entirely new method of heating. Beginning back in the 1920's a new kind of automatic home comfort and leisure came into American living. Actually a lot had preceded this sudden mushrooming of the new way to comfortable home heating.

First, men who were willing to risk their time and money drilled for petroleum in different parts of the country. And it was found in many states, some far removed from that first, historic oil well in Titusville, Pa. Then ways to refine crude oil, break it down into usable products . . . ways to

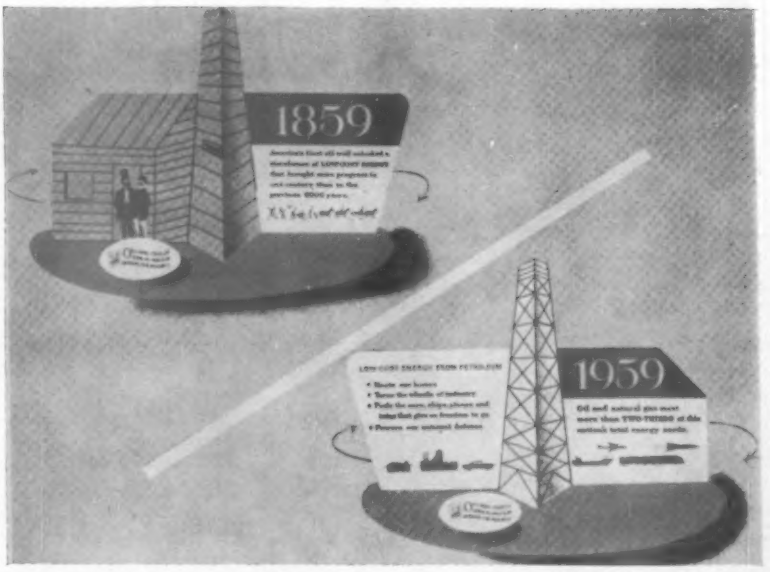
transport it by long trains of tank cars, huge ocean-going tankers and pipelines spanning the continent . . . these had to be developed. Lastly, the uses for this petroleum and its products had to be found.

The use of oil for heating of homes and buildings and the tremendous part of the national economy it now represents developed gradually. It developed from the findings of scientists, from the activities of companies, and from the work of the many individual men whose enterprise has always been a prominent part of oil's history of progress. Beginning with the 1860's, attempts were made to create usable heat and heating equipment with oil as the fuel. One such attempt fed oil through hot iron or red-hot coal. Another soaked oil through a wick in a principle similar to the kerosene lamp. And a last method—"atomizing" or mixing droplets of oil with air under pressure—was experimented with by the U. S. Navy as long ago as 1875. Incidentally, atomization of heating oil is today the principle of most of the modern oilburners.

Oilheating in 1893

The next step ahead was at the world famous Columbian Exposition at Chicago in 1893 where visitors were astonished to learn that all buildings of the giant fair were heated with a new, unheard of, liquid fuel—oil. A total of 54 oilfired burners did the job. In 1912 the U. S. Army also discovered the convenient and automatic values of oilheating. At Fort Baker in California, oil was stored in a reservoir on a hill and flowed through pipes to living quarters, hot water heaters and military kitchens—providing all needs throughout the post. In 1917 during World War I when coal was short, several thousand oilburners for house heating were manufactured and put into homes, mostly in the area of Detroit. By 1928 oilburners had become so important that one was installed in the White House.

By the 1920's, oil heat suddenly was found to fill a national need and there was great demand for it. Even before that time, oil had begun to play a role in heating large-sized buildings, such as apartment houses and offices. When homeowners began to discover it, its cleanliness and convenience, and word got around that it provided automatic, safe heat—oil heat began to spread on a large scale throughout the country. In 1923, there were about 23,000 oilburners in operation. By 1935 this had topped one million. In 1951, there were five million. And in January of 1959, there were 9,324,927. These figures are only for homes centrally heated by oil. In addition, about 7 million other American homes in warmer sections of the country, or where small amounts of heat are needed, use oil for space heaters or stoves.



Centennial window display contrasts the horse-and-buggy America of 1859 with today. Available from American Petroleum Institute for $20, including shipping.

As a result of all this development, oil has become the leading home heating fuel in our country. In terms of heat energy provided for homes and buildings, oil supplies 44%, gas 33% and coal and other fuels 23%. The great majority of American homes heated by oil are centrally heated. It may surprise many of you to know that this is an advanced form of heating only beginning to be widely used in other modern countries of the world. For example, in the leading countries of Europe, oil heat in the form of central heating, which has for a quarter of a century been so well known to us, is just now beginning to be the most sought after form of heating for homes.

In the United States, oil particularly leads in the northern part of the country — especially in those states with heavier concentration of population and where longer, harder winters call for a modern and reliable form of home heating. When you consider that oil heats a total of 16 million homes and that these average three or four people a home, you can see that a very large percentage of our total U. S. population depends on oil heat to see it warmly through the winter.

It is important to consider how oil heat grew to perform this role in our lives. The oil heat industry is essentially an industry of individuals. It is based on free enterprise with all the services and advantages to the consuming public that competition between oil suppliers and oil distributors in your home town can ensure. A total of almost 40,000 different companies work as independent units within the large framework of the American petroleum industry to help bring modern fueloil to our homes. Over 11,000 of these alone are local fueloil dealers who serve you in your community. You know them as businessmen or neighbors. You know them from their reliable supplying of heat to your homes. And you as a member of the public have free choice to select the one whom you prefer to buy from.

(*Please turn to page* 100)

Why do Nozzles coke?

Socony Mobil Research reports on Causes and Remedies for this oilburner Complaint

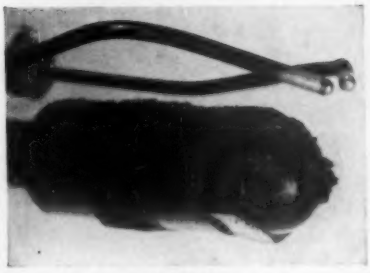


Figure 1

by R. A. Billmeier*
and
C. G. Salvesen*

NOZZLE COKING has long been a common oilburner complaint. Various surveys indicate it may actually be more serious than generally recognized. Partially coked nozzles can produce distorted sprays and a variety of other burner complaints. Nozzle coking is frequently caused by poor cut-off valves, leaky nozzle adaptors, or because the burner is pushed too far into the combustion chamber. However, these troubles normally are obvious and can easily be corrected. Our study was primarily concerned with nozzle coking which occurs in burners that are properly installed and apparently in good working condition.

When a burner nozzle is subjected to a high temperature for extended periods, particularly on shutdowns, the oil within the nozzle partially vaporizes and "cracks" to form coke on the nozzle exterior and lacquer-like deposits on the nozzle interior. (See Figure 1.) Normally the nozzle orifice is clean, as shown in the enlarged photograph, Figure 2. However, when coke builds up within the nozzle orifice it is no longer smooth but very jagged. This can be seen in the enlarged photograph of a coked nozzle, Figure 3. As coking progresses the deposits may also restrict the output of the nozzle.

When a nozzle becomes coked the oil spray is distorted. Instead of a uniformly fine spray, some large droplets are formed. Some get out into the combustion chamber, others drip into the burner blast tube. Figure 4 depicts the spray from a coked nozzle.

As a result of the poor atomizing characteristics of a coked nozzle excessive smoke and soot are produced. This usually leads to one or more of the following complaints:

1. Poor boiler efficiency.
2. Smoky fire.
3. Oil odors.
4. Ignition failure, due to sooted or overheated electrodes.
5. Apparent failure of oil cut-off valve.
6. Stack control failure, due to excessive soot accumulation.

For laboratory studies the only convenient way to measure coking is to follow the (1) operating (running) and (2) the shutdown temperatures of the nozzle. Since coke formation is related directly to temperature this approach is technically sound. It is obviously not practical to continue each test until coke actually disables a burner.

The nozzle temperatures were obtained by installing thermocouples on the outside and inside of the nozzle. Figure 5 shows the location and construction of the thermocouple on the nozzle tip.

A second thermocouple was inserted inside the oil line up against the back end of the nozzle core to measure the cooler end of the nozzle. This temperature, after shutdown, is quite consistently 50-100°F. lower than the tip

*Socony Mobil Oil Co., Research Dept., Brooklyn 22, N. Y.

Figure 2

Figure 3

Figure 4

temperature. While the back-end temperature was measured in all tests the tip temperature is felt to be more indicative of coke formation.

Any coking study has to take into account the basic factors which will influence the temperature of the nozzle. One important factor is the amount of excess air fed to the burner. As excess air decreases (increasing % CO_2) the flame temperature increases and the cooling benefit of air passing the nozzle decreases. Therefore, each of the individual studies of firebox size and material, nose piece material, combustion heads, insulation, and return flow nozzles was made over a range of CO_2. The general trend was the same in all cases, that is, as CO_2 increases, nozzle temperature increases. Figure 6 shows a typical relationship of nozzle tip temperature (maximum after shut-down for cycle operation) and percent CO_2.

The material of the burner nose piece has a significant influence on the temperature the nozzle reaches both during running and at shutdown. Figure 7 shows how the greater heat retention of a cast-iron nose piece results in a higher nozzle tip temperature at shutdown. The temperature is about 40°F. cooler if a nose piece, of steel or transite, is substituted for the cast-iron.

The results were obtained for cyclic operation of 20 minutes "on" — 40 minutes "off." The same relationship was also found to hold at equilibrium conditions (2 hours or longer "on" time).

Figure 5

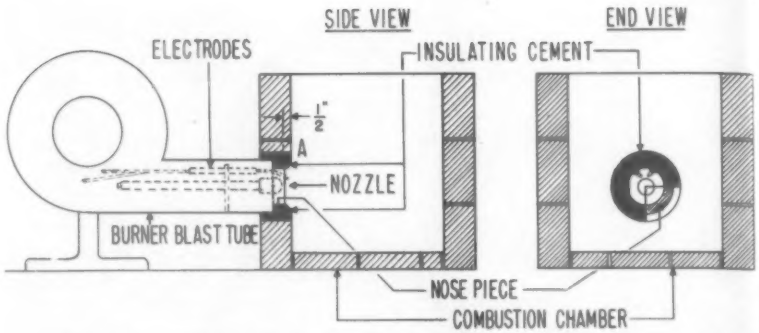


FIGURE 12 LOCATION OF INSULATING CEMENT AROUND BURNER NOSE PIECE

A—RECESS BURNER $\frac{1}{2}$" IF POSSIBLE. IF NOT MOUND ABOUT $\frac{1}{2}$" OF CEMENT ON NOSE PIECE.

Burners with a combustion head show lower nozzle temperatures than "standard" types of burners. These results are shown in Figure 8. The burner with a combustion head operates with a nozzle tip temperature 100° to 140°F. lower than a burner with a conventional nose piece. The lower temperature is due to:

1. The head is made of sheet metal, not cast-iron.
2. The head consists of several layers of metal which act as a heat shield.
3. The air velocity is higher and so is more effective in cooling the nozzle and surrounding parts.

Increasing the combustion chamber size reduces the nozzle temperature because the hot, radiating surface of the chamber is further away from the burner nose piece and nozzle. Using a conventional burner at 1.0 gph a reduction of about 100°F. results from increasing the firebox size from 10 x 10 inches to 12 x 12 inches.

Differences in combustion chamber material also affect nozzle temperature. Hard refractory type brick produces a lower nozzle temperature than an insulating type brick but the heat is retained in the hard brick for a longer time. Figure 9 shows the comparison of the maximum nozzle tip temperature in hard and soft brick fireboxes. There is about a 30° to 40°F. reduction when using hard brick. However, as shown in Figure 10 the nozzle cools at a slower rate with the refractory brick. This tends to cancel out the initial advantage.

Two factors are always at work which tend to keep the nozzle cool. One is the air flowing past the nozzle and the other is the oil flowing through it. Since the volume of oil passing through a return flow type nozzle (e.g. Delavan's Lo-Flo) is many times the amount which goes through an ordinary nozzle, the return flow type should run cooler. Our tests showed a reduction of well over 100°F. under severe operating conditions. A significant reduction would also be expected under more normal conditions.

An examination of the various factors on a properly installed and adjusted burner which influence nozzle temperature, points to the burner nose piece as being the most significant item in causing nozzles to overheat. When the nose piece gets hot it radiates its heat to the nozzle both during burner operation and after shutdown. It has generally been thought that the direct radiation from the flame and combustion chamber walls was the principal factor in nozzle coking. However, shielding the nozzle and even completely shutting off the front end of the burner after shutdown, was ineffective in reducing nozzle temperature. In fact, the latter experiment resulted in about a two-fold increase in nozzle temperature.

It was on the basis of these tests that attention was diverted to the burner nose piece. Insulating the burner nose piece was very effective in reducing nozzle temperature both while the burner was running as well as after shutdown. Figure 11 shows the

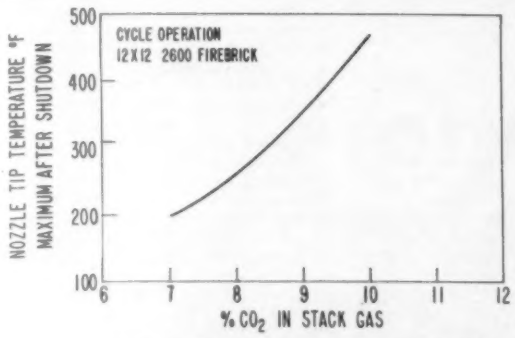


FIGURE 6 EFFECT OF CO_2 ON NOZZLE TIP TEMPERATURE

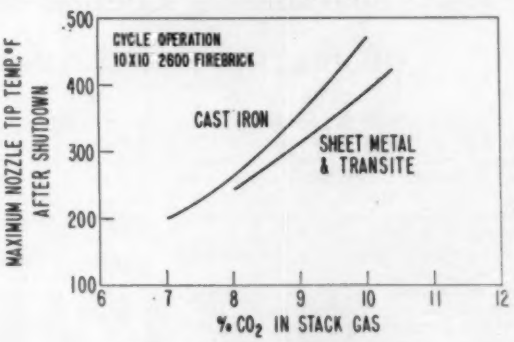


FIGURE 7 EFFECT OF NOSE PIECE MATERIAL ON NOZZLE TIP TEMPERATURE.

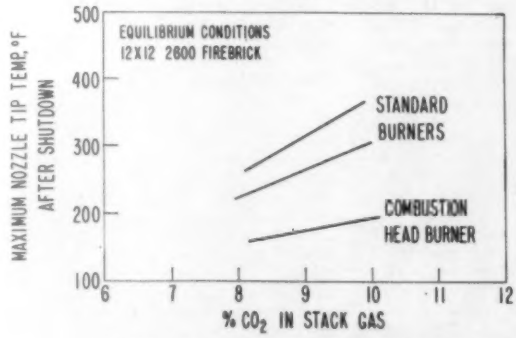


FIGURE 8 EFFECT OF NOSE PIECE CONSTRUCTION ON NOZZLE TIP TEMPERATURE.

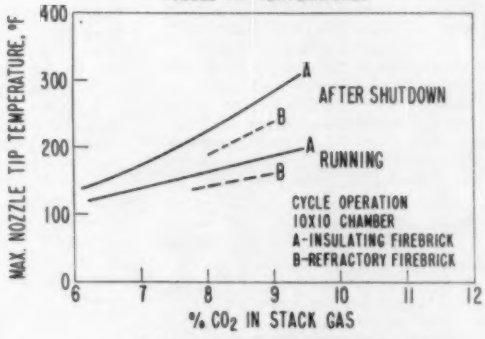


FIGURE 9 EFFECT OF FIREBOX MATERIAL ON NOZZLE TIP TEMPERATURE.

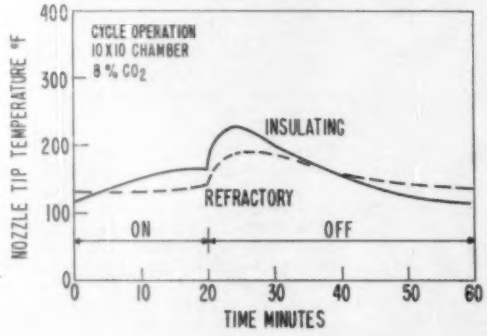


FIGURE 10 EFFECT OF FIREBOX MATERIAL ON NOZZLE TIP TEMPERATURE.

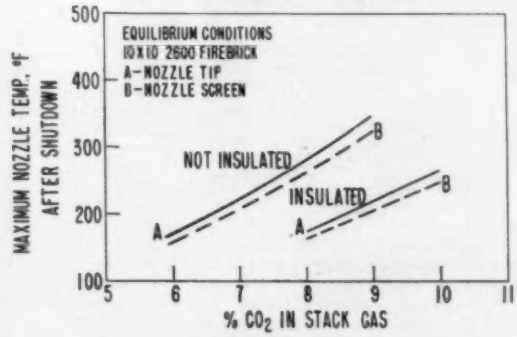


FIGURE 11 EFFECT OF INSULATING NOSE PIECE ON NOZZLE TEMPERATURE.

nozzle temperature behavior of a typical burner with and without insulation on the cast iron nose piece. Insulating the nose piece reduces the temperature 100°F. or more on many installations. In fact the higher the "as found" nozzle temperature the greater the temperature reduction after insulation is added to the nose piece.

One of the worst conditions found with respect to excessive nozzle temperature was on a burner installed within a "tunnel" connecting the combustion chamber with the outside of the boiler or furnace. Installations of this type are sometimes used to prevent mica pellets surrounding the chamber from falling out if the burner is removed. Before insulation was applied the nozzle tip temperature was 600°F. while running for two hours or longer, and 735°F. after shutdown. After insulating the nose piece the running and after shutdown temperatures were 235°F. and 315°F. respectively.

To get the full benefits of insulation it is important that it be applied to the face of the nose piece. Many burner manuals call for the application of insulating material around the blast tube to prevent air leakage. This is not sufficient to keep the nose piece, and therefore the nozzle, from overheating. Where possible, the insulation can be applied most effectively by recessing the burner slightly, about ½ inch, and applying insulation flush with the chamber. Figure 12 shows in detail how this is done. Of course, care must be taken to make sure there is no impingement and that none of the insulation covers any air passages or oil drain holes.

(Note: A more detailed description of this process appeared in the April 1959 issue of FUELOIL & OIL HEAT, beginning on page 55.)

Spartanburg County, S. C.

OILHEATING MARKET REPORT

SPARTANBURG COUNTY, covering about 830 square miles in northwestern South Carolina, evidences a growing interest among its heating oil marketers toward organized effort to protect and promote its oilheating industry. This county represents the market area of this analysis. It is adjacent to another already active market Greenville County, South Carolina.

Our only definite "fix" on dwelling units in the county is from the 1950 census. This lists 37,105 (93.8% of total) one-and-two-family units and 2,460 multiple units. Our best guess on the number of homes today, related to the population increase, indicates there should be about 45,000 dwelling units, the majority of which—or more than 42,000—are of the one-or-two-family variety. A maximum of 10% of the existing homes are in the top class, custom-built ($25,000 and up), 30-40% in the medium class ($15-$20,000) and the balance in the GI-FHA or speculative class. The trend in current building activity seems to be in the medium class—four-room homes with two bedrooms.

Home heating Characteristics

The earliest records available (1945 fueloil ration permits) showed, in the county, only 177 central heating installations, 1,177 space heating systems.

The 1950 census provides a count of 37,310 homes heated by either centrally-installed or non-central systems. The table lists a break-down of these, by fuel used, together with a projection of the residential heating usage in 1958:

	1950	1958
Coal Central	1,950	2,970
Non-Central	17,285	8,280
Gas Central	60	—
Non-Central	210	2,100*
Oil Central	1,790	10,034
Non-Central	8,545	17,161
Other Fuels (Total)	7,470	4,455
TOTALS	37,310	45,000

These projections reflect the larger importance of non-central heating installations in the area . . . also, the decline in the usage of coal in the eight-year period. In the opinion of the local oilmen (some of whom also handle solid fuel) this decline may have been slightly less drastic, or on the order of 53%.

In addition to the 10,034 centrally-installed residential oilburners estimated, there are another 1,447 in small commercial-small apartment usage. Finally, there are probably as many as 2,000 additional space heaters in use in this type application, over and above the 17,161 residential systems listed.

Competitive Fuels and Costs

Bituminous coal is sold in the area for hand-fired furnaces at $15 per ton, with a Btu content of 14,000 per pound. This is the equivalent of 5.4¢ per therm, of 100,000 Btus. In sizes for stoker firing and of approximately the same Btu content, this fuel runs only about 50¢ per ton higher.

Natural gas is served in the city of Spartanburg by the Piedmont Natural Gas Co. (Electric service is supplied by the Duke Power Company.) In addition, there is a moderate amount of LPG sold for heating purposes.

The natural gas of "not less than 1,000 Btu per cubic foot" costs somewhat more than heating oil on a comparative per therm basis. Since the lowest rate, of 11¢ per Ccf., is attained after only 30 therms of fuel usage monthly, and since we ordinarily assume cooking and water heating (consuming, on the average, 25 therms monthly) to be installed, gas for heating must cost, at a minimum, 11¢ per therm. Thus, while it has been available for some years (since 1951), no heavy promotion has been made for its use as a heating fuel, and distribution is limited to the total of 3,388 meters mentioned earlier.

No. 2 fueloil sold at the time of this survey for 13.6¢, tank wagon, a drop from 14.5¢ during the winter. Even under the higher, heating season price, the cost-equivalent on a per-therm basis comes to only 10.4¢.

Fueloil Distribution

The total marketed volumes of No. 2 fueloil and kerosene have been difficult to figure, for lack of dependable statistics. However, we estimate that the entire No. 2 volume comes to about 13¾ million gallons. This is somewhat under the composite of estimates by oilmen in the area, but there was considerable variation among their individual opinions.

A small share of the wholesale volume is brought into the county (about 14%) by independent wholesale suppliers, the rest by major companies. Virtually all of the retail fueloil distribution is made by the independent fueloil marketers.

About 75% of these independent marketers maintain no bulk storage facilities of their own, purchasing supply "under the fill" from other companies. The oilmen estimate that a bit over half of the market retail gallonage is handled in this manner.

The use of audible-type fill signals on customers' storage tanks is practically nonexistent in this area. This does not denote the highest level of industry concern for maximum consumer service, but a fairly substantial proportion of customers (58%) are served on automatic fueloil delivery. In another measurement of "sophistication" in operating methods, an unusually high percentage of customers seem to avail themselves of budget plan payments (29.6%).

Market Concentration

An estimate made of the number of trucks in heating oil delivery service in the county represents a count of substantially all vehicles in such operation in this market. Following is a breakdown of the numbers of companies operating various-sized delivery fleets:

3 dealers operate 5 trucks each
4 dealers operate 3 trucks each
4 dealers operate 2 trucks each
20 dealers operate 1 truck each

Thus, the average, among the 31 dealers listed, operating a total of 55 trucks, is 1.8 trucks per company. Figuring back, from another estimate by the oilmen, that the average annual gallonage of heating oil delivered by the typical truck in service comes to 370,000 gallons, our total volume estimate for No. 1 and No. 2 fueloil in this market checks out very well.

Oilheating equipment Sales

The fueloil jobbers (9%) who handle oilburning equipment do more than their share in the total sale of burners installed (about 14%) but by far the greatest number of units (55%) are put in by plumbing and heating companies, who have no particular reason for being "loyal to oil" over any competitive system in demand. The balance, or 31%, of all burners are installed by specialized burner service companies who, too, handle no fueloil. On the other hand, there is encouragement in the unanimous opinion of the oilmen locally that fueloil jobbers' activity in oilburner sales and installations is increasing.

Oilburner Service

The local fueloil industry is not strongly identified with all-around oilheating service; that is, only about 26% of the burner service work in this area is performed by the firms who market fueloil. The lion's share (46%) is handled by the plumbing and heating companies; the balance, of 28%, by the burner service organizations. Again, it is all to the good for the future prospect of a strong, well-rounded, responsible oilheat industry in this market that all the oilmen interviewed note an increasing activity by the fueloil men.

Oilburner service contracts of the usual type are not generally offered. (Only one company is known to have any organized plan in this direction—no more than 8% of the market's oilburning homes have service contracts.)

In addition, one-fourth of the remaining homes receive an annual oilburner clean-and-tune-up job, not under service contract.

Advertising Promotion

Direct advertising of oilheat by individual major suppliers has been quite limited—"moderate" to "very little"—according to the local industry consensus. No more than 16% of the over-all emphasis in such direct advertising as has been done, however, is devoted to playing up oilheat in general; the principal weight of the promotion is toward the merchandising of various brands.

A bit better than two-thirds of the jobbers conduct individually-sponsored advertising programs. Expenditure in this regard runs around 93¢ per existing fueloil account on the books.

The "Spartanburg County Fueloil Dealers, Inc." is a new organization, brought into being through the persistent efforts of a few industry leaders. While the competitive activity of the local gas company has not yet been aggressive, such action seems indicated for the immediate future.

Some group activities, beyond a cooperative promotion program, are contemplated by the jobber segment of the new organization, such as exchange of credit information, and opposition to legislation considered detrimental to the industry and the public it serves. These activities, however, objectively pursued, should help build cohesiveness among the group, strengthening its unity of purpose in a promotional effort.

The Spartanburg Fuel Oil Dealers Association, formally organized, with charter and by-laws, is governed by elected officers and an executive committee composed of these officers. Working responsibility in the various fields of activity is delegated to several committees.

While we are unable to separate the central and space heating utilization of gas, non-central applications are certainly in greater proportion. Since the distribution of natural gas in the county is presently confined to the city of Spartanburg and since, as of March, 1957, there was a total of only 3,388 gas meter customers, this estimate for all gas heating users should represent a reasonable maximum.

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Honeywell announces a major scientific breakthrough---the **ULTRAVIOLET SENSOR**

NEW FLAME SENSOR POSITIVELY DIFFERENTIATES BETWEEN FLAME AND HOT BRICK

Honeywell development utilizes invisible ultraviolet rays to revolutionize safety standards in detection devices.

Honeywell's New Ultra-Vision* Flame Detector, C7012A

*Trademark

An ultraviolet-sensitive tube about the size of an index finger now solves all your flame sensing problems, including refractory override and hold-in.

Developed by Honeywell, the C7012A Ultra-Vision tube is the only sensor that can tell the difference between real flame and red-hot firebrick so that raw fuel delivery is stopped immediately in the absence of flame. It also eliminates nuisance shutdowns occurring when refractory glare masks out the flame.

Multiple-burner installations are greatly simplified since the Ultra-Vision tube, being insensitive to the refractory, can be aimed directly at the flame in any convenient way —the sensor will detect a flame from any type of fuel.

The C7012A ultraviolet sensor will bring revolutionary new safety to gas and oil burners. For complete information call your local Honeywell office, or write Honeywell, Minneapolis 8, Minnesota.

The Ultra-Vision Flame Detector will work with all Honeywell rectification relays →

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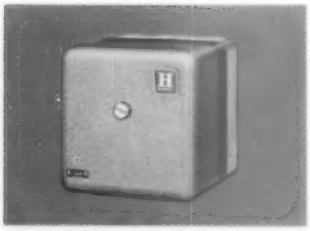
New U.L. requirements mean stack relays can no longer be used on commercial burners of more than seven-gallon size. You can meet *all* requirements by choosing Honeywell, now offering the most complete line of Electronic Combustion Controls with exclusive Safety Start.



FOR MEDIUM BURNERS—
RA890C PROTECTORELAY*

The RA890C is a basic rectification relay ideally suited for use with the new C7012A Ultra-Vision sensor, as well as with flame rods or photocells. It's designed especially for pressure-gun oil burners, small combination gas-oil burners and gas power burners.

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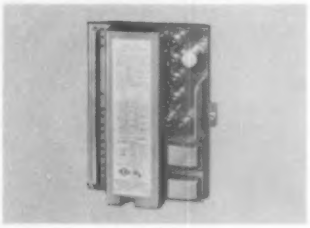
R478 PROTECTORELAY

Here's an electronic programming relay for large horizontal rotaries, combination gas-oil burners, steam-atomizing burners and large power gas burners. The R478A may be used with the C7012A Ultra-Vision sensor, flame rods or photocells. The R478B is available for use with lead-sulphide cells.



FOR MEDIUM-SIZE COMMERCIAL BURNERS—
R4074B PROTECTORELAY

In applications where the extra flexibility of the R478 (above) is not a requirement, the R4074B Protectorelay provides an economical programming relay for use with lead-sulphide flame detection systems.

Choose Honeywell—all types of controls for every possible combination!

- Choice of flame detection
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- Wide range of voltages
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Fueloil better than Gas for chemical-plant Pots

Oilburners replace gas Burners for heating Chemicals to 900°F. The radiant Heat of oil Flames is advantageous.

by Jean L. Dupuis

YOU MAY BELIEVE you are properly chock-full of enthusiasm for oilburners, and for the use of fueloil in preference to gas as a fuel. You may believe that your enthusiasm for oilburners and fueloil cannot be increased.

There's a good chance that you will become even happier, as an advocate of using fueloil instead of gas as a fuel, by learning of specific commercial-industrial instances in which the use of fueloil proves vastly superior to the use of gas.

Fueloil is in a class by itself with respect to providing safe operation of these commercial-industrial process-heat set-ups. A set-up is necessarily arranged so that opening a valve permits fuel to flow in large quantities into the large combustion space under a "pot" or retort. Coupling all the facts puts emphasis on the one fact that, compared to fueloil, gas is an unsafe fuel for these applications.

Here are the facts which, coupled together, make gas unsafe for these applications:

1. There's the valve, just mentioned, which can be opened to permit fuel to flow in large quantities into the combustion space. That valve may be opened by a workman with the technical training and intelligence of a floor-sweeper, or by a scientist or physicist whose aloof mind scorns learning how to open a fuel-feed valve safely. Such a valve, likely to be swung open by almost any man near it in the chemical plant, is not safe if it can emit gas!

True, electronic combustion-safety devices should protect fuel-burning equipment of this type, and often they are installed. But where such electronic devices are not installed, gas as a fuel is infinitely dangerous compared to safe fueloil.

2. Leaks of gas pipe lines and specialties present a great hazard. Often these things are hooked up quickly without the benefit of pressure tests for leaks. The slow or fast leaking of explosive gas from a pipe line or specialty can go unnoticed until it causes a disaster. On the other hand, the leaking of liquid fueloil from a pipe connection is noticed at once, and is not important as a hazard because fueloil cannot burn as a liquid but must be atomized or vaporized to make it burnable.

3. The large combustion spaces under the chemical pots and retorts (see the accompanying drawing which shows a combustion space ten feet in diameter) are almost ideal for pocketing any gas that escapes while the equipment is not being fired. The gas can escape from a leaky shut-off valve, or from a fitting or specialty connection of the gas burner.

4. In overall, the wide variety of men in chemical plants cannot be depended on to follow instructions regarding safe light-offs and adjustments for their high-capacity fuel-burning set-ups. Fueloil is relatively safe, even if safety precautions concerning its use are not literally and strictly heeded. Gas, an explosive when mixed with air, is unsafe unless safety precautions are followed strictly and rigidly.

In the metal working, metal reclaiming, and chemical industries, equipment set-ups are used in which the material to be heated must be raised to a fluid temperature surprisingly high, perhaps 800°F. or 900°F.

This means that the stack temperature of the heating apparatus will be 1,000°F. or higher.

The pot in the accompanying drawing is of a simple, basin shape so that its inside surfaces can be cleaned chemically after a batch of chemical

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Vulcan Tail Piece Heaters are made in 1, 2, 3 and 5 kw units, with automatic single or dual thermostatic control. They are available with 2" NPT screw mountings or 4" bolt circle flanges. Temperature is controlled to ±5°F. Automatic wattage output drop on low fire or standby is optional.

Suction or Return Line Heaters have standard wattage range of 6 kw through 38 kw, voltage ratings of 208, 240, 480, and 550. They are available with 2" NPT screw mountings or 3", 5" and 6" standard pipe flanges. Circulation heaters may be ordered completely assembled with insulated shell and jacket.

Stocks are available at H. & L. Oil Burner Supply, Brooklyn, N. Y., and Boston Cooper Company, Boston, Mass.

OEM and jobber inquiries are invited.

VULCAN

ELECTRIC COMPANY

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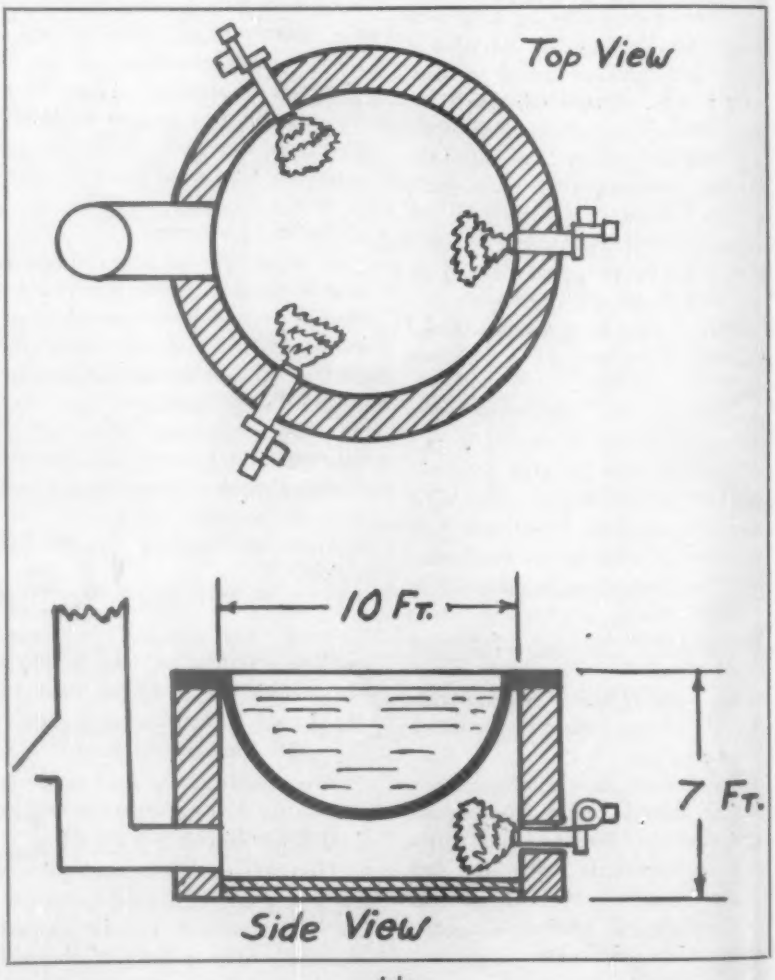
COMMERCIAL & INDUSTRIAL oilburning

has been processed. Cleaning the inside surfaces simply and swiftly is highly important. That's another reason for using no flues and secondary heating surfaces. . . . of a type that change the simple shape of the pot. The chemical should not flow through tubes, surrounded by flame and similar to the water tubes of a steam boiler. Hot gases from the flame should not go through tubes surrounded by chemical and similar to fire tubes of a steam boiler.

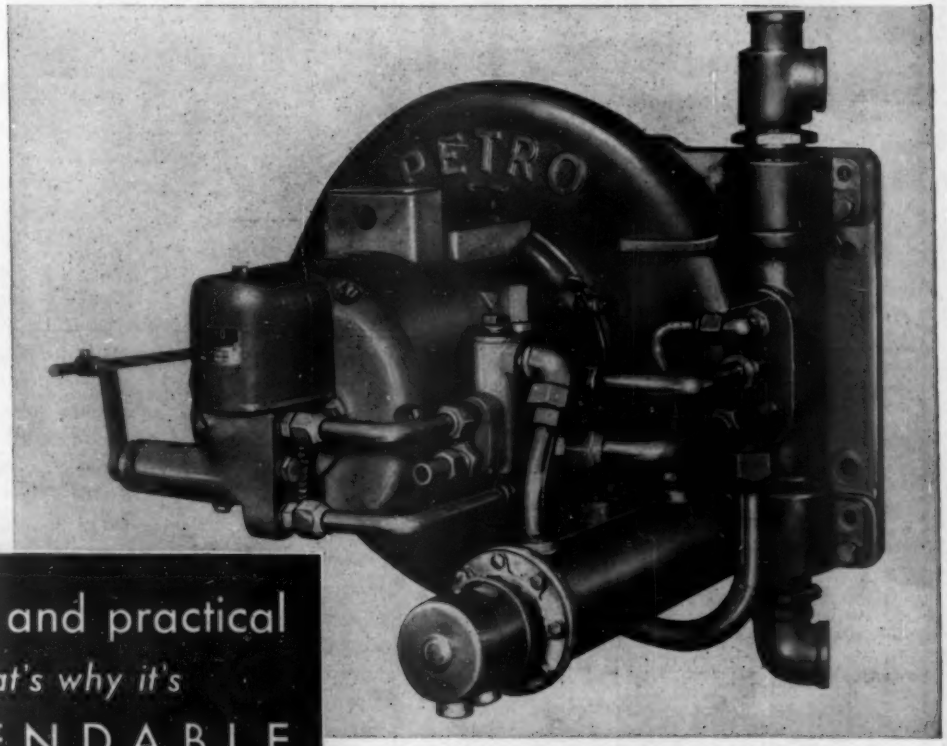
Because the construction of the pots is necessarily extremely simple, for the preceding reasons and as the accompanying drawing shows, direct heating surfaces do all the work of transferring heat from the flame to the pot. A direct heating surface can "see" the light given off by the flame firing the apparatus, in contrast with an indirect heating surface which cannot "see" light from the flame.

A maximum rate of heat transfer for the direct heating surfaces, and therefore maximum thermal efficiency and effectiveness for a pot of this kind, can be realized only through using a burner and a fuel that produce a luminous flame. A luminous flame

Containing a chemical that must be heated to and kept at 800°F. to 900°F., the metal "pot" in these drawings first was fired by a blue-flame gas burner, at low efficiencies because the blue gas flame gave the pot's direct heating surfaces practically no radiant heat. Improved firing by oil, using the three domestic, pressure burners in the drawings, increased the production of the pot 100%—thanks to the immense amount of radiant heat provided by the incandescent oil flames. In addition to being infinitely safer than gas firing for this installation, here oilfiring can produce performance that is impossible for gas firing.



Petro HEAVY OIL BURNER



Simple and practical *that's why it's* DEPENDABLE

Residual oils are low cost fuels. They have higher heat value than light oils, and usually cost less per gallon. But in spite of their economy they are often avoided because they are considered difficult to handle and burn. A moderate change in temperature can change them from a fluid to a sluggish semi-solid.

These heavy oils (Nos. 5 and 6) are easily controlled and burned by the Petro system which is remarkably free from mechanical complexities.

1. A simple oil heater automatically warms the oil to a point where a common viscosity is reached. (Fuel oils approach this at a temperature of about 160 degrees).

2. An automatic valve passes the oil to the nozzle only when it is warm enough for accurate metering and instant ignition.

This is the basis of the Petro "Thermal Viscosity Principle." The Petro burner isn't fancy; it isn't temperamental; but it *stays on the job.*

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Petro oil burners have been the steady, reliable work horses in heavy oil firing for over 50 years. They have saved their owners untold thousands of dollars in low fuel and maintenance costs.

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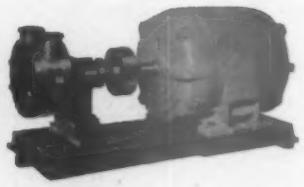
fuel oil & oil heat

KRAISSL PUMPS

YOU NEED a Kraissl Class 60 direct-drive pump . . .



When oils of No. 2 to No. 4 viscosity are handled, a pump that operates at direct-motor speeds is frequently the proper choice. With the new Kraissl direct-connected Class 60 pump, speeds of 1200 or 1800 rpm can be used on light oil—without developing undesirable cavitation.

Fig. 1, below, shows areas of most-effective operation; Fig. 2 indicates high suction lift characteristics of the Class 60 pump—based on 150 S.S.U. oil at 1200 rpm.

Our engineering department will be glad to make specific recommendations to fit your pumping needs. Contact us today.

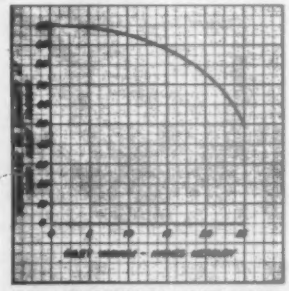


FIG. 1. VACUUM-CAPACITY CHART

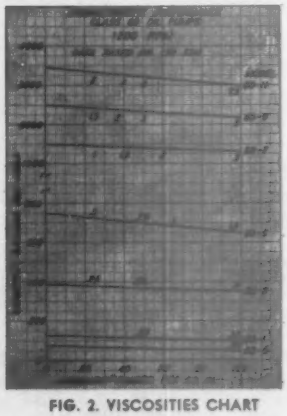


FIG. 2. VISCOSITIES CHART

Write for Bulletin 1904

KRAISSL CO. Inc.

295 Williams Ave.,
Hackensack, N. J.

COMMERCIAL & INDUSTRIAL oilburning

works direct heating surfaces far harder than they can be worked by another flame similar in every respect except that it is non-luminous.

That gives oilburners and fueloil, which are natural and excellent at producing highly luminous flames, a tremendous thermal advantage over the use of gas burners. . . . for the gas burners have a natural tendency to produce flames which are blue in color, and non-luminous.

That great thermal advantage of oil over gas, related to the highly luminous flames provided by oil-burners, is gained in oilfiring all types of furnaces and boilers—for all of these have direct heating surfaces. But this thermal advantage gains most for oilfiring, of course, in the case of equipment which has only direct heating surfaces, and which has no indirect heating surfaces. The oilfired pot in the accompanying drawing is an excellent example of such equipment.

This pot (in the drawing), which is used in a chemical plant, has an interesting history that includes many points of education for fueloil and oilheating enthusiasts.

First it was fired by relatively feeble water gas, which is an artificial or manufactured fuel-gas made by jetting steam over incandescent carbon to produce a mixture of hydrogen and carbon monoxide. Its high content of carbon monoxide, incidentally, causes this gas to be highly poisonous.

Notes on its gas firing indicated this pot set-up was "very dangerous." In considering switching to a better firing arrangement, to increase the output of the pot, the chemical-plant engineers just briefly mentioned the possible use of natural gas. The use of this fuel, one plant engineer declared, would make things still more dangerous. . . . to the degree, he said, that he would not want to continue working in the plant.

As the first step of improvement in the correct direction, the firing of this pot was switched from gas to fuel-oil, through the installation of one oil-burner to fire the combustion space under the pot.

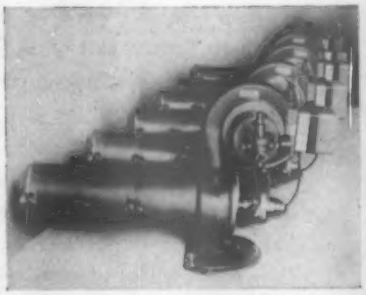
An educational point was soon learned as the result of this endeavor. The use of the one, large, oil flame was found to give a concentration of heat that caused the pot to crack. This pot-cracking trouble was serious in several ways. For one thing, the metal pot itself was far from inexpensive.

Next, three oilburners were installed as the accompanying drawing shows them, 120 degrees apart from each other. This and the resulting performance of the chemical-heating pot are described by some observers as "ideal."

The burners which were installed produce flames which their manufacturer describes as "ball-shaped flames," or which can be described as flames of the "Shell-head type." Such oil flames do well, firing into the large, open volume below the chemical pot.

Each of the three burners fires at the rate of 3.50 gph. The start-up procedure is to turn on one burner and fire it until the pot is heated up uniformly, and then turn on the other two burners.

On this particular installation, both the heating up and the combustion in general are excellent because the floor of the combustion space is made of 2,000°F. insulating firebrick—which



Six Model TUV pressure burners, ready to be shipped out to fire chemical "pots." Designed originally and primarily for domestic installations, these burners are of cast-iron construction throughout that befits them for long years of hard work on commercial-industrial installations of the kinds described in the accompanying article. These burners each are fitted with two 6" cast-iron gun-tube extensions, giving them total gun-tube lengths of 21"—because the fireboxes they will fire, located under chemical pots, have refractory side walls which are 18" thick.

Yes, when you have a burner application, consult the POWER FLAME Catalogue FIRST. You'll discover a complete range of POWER FLAME models and sizes in light oil and gas combination gun-type burners. This flexibility fits your requirements to a T and saves countless hours of catalogue searching. Every POWER FLAME burner has been "torture tested" for maximum efficiency and dependability. You profit from low-cost installation and maintenance, too!

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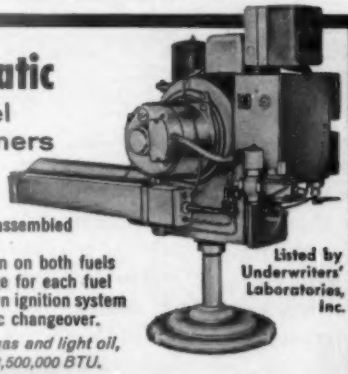
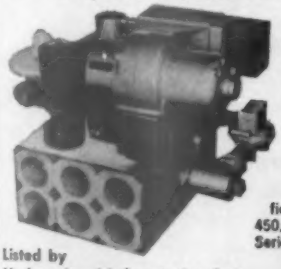


Listed by Underwriters' Laboratories, Inc.



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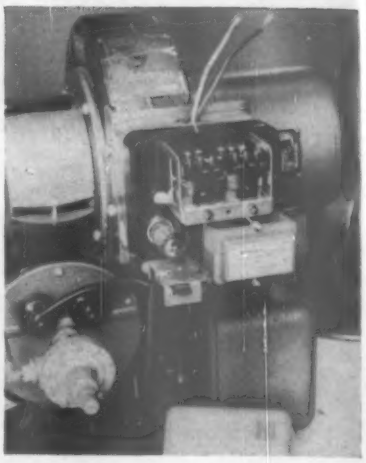

Close-up of the primary control mounted on one of the Model TUV pressure oilburners made for firing a chemical pot. Where three oilburners fire one pot, each burner has such an electronic primary control. It's the Honeywell Model RA890C Protectorelay, which gives 15-second trial-for-ignition period. Built into the gun tube of the burner is a Honeywell Q174 electronic photocell that monitors the flame produced by the particular burner.

are, of course, exceedingly light in weight. Such firebrick heat up extremely rapidly following a cold start-up, concentrate the heat in the combustion space by not permitting downflow of appreciable heat through the combustion-space floor, and in normal operation become exceedingly hot where in contact with the oil flame.

Following a cold start-up, within minutes the floor temperature of the combustion space reaches 700°F., as measured by a pyrometer, and as the result the oil combustion is exceedingly clean and without any smoke.

The side view of the accompanying drawing shows that this particular installation really provides a downdraft combustion feature. The bottom of the smoke outlet of the combustion space is as low as possible, down at the level of the combustion-space floor. The products of combustion leave the combustion space at the lowest point possible.

The hot gases leaving each of the oil flames are at temperatures above 2,000°F. Leaving the flames, these products of combustion naturally rise exceedingly rapidly to the highest level they can attain. This action causes them to encircle more or less the bottom, curved, part of the pot —heating the pot doing this.

The result is a continuous downpour from the pot surfaces of products of combustion that have been "cooled" by contact with the pot. The temperature of these "cooled" products of combustion is relatively low, only about 1,100°F. !

Dropping continuously to the floor level of the combustion space, these "cooled" products of combustion flow out through the smoke outlet of this space, then are draw up the stack by natural draft.

All the while this goes on, with the three oilburners firing, the pot is given radiant heat by the three oil flames. Though fierce and intense and given the pot in important amounts, this radiant heat is distributed wonderfully uniformly over the direct heating surfaces of the pot. . . . thanks to the use of three oilburners instead of a lesser number.

The manufacturer of these oilburners declares they work exceptionally hard for pressure burners of 3.50 gph firing rates. Except for downtime needed for cleaning the chemical side of the pot surface, these burners are scheduled to work 365 days a year on a 24-hour basis.

Standard, regular-production pressure oilburners, designed for house-heating, can handle this tough assignment, however. This is a tribute to the toughness and ruggedness of the most sturdy oilburners made for heating homes!

The burners used on this highly unusual commercial-industrial installation are house-heating Electrol oilburners, Model TUV, with gun tubes extended a total of 12" through the use of two 6" gun-tube extensions.

In this Model TUV burner, the entire burner chassis including the blower housing is made of cast-iron. The entire gun tube is of cast-iron, eliminating chances of a burned-out gun tube even on such a hard-working commercial-industrial installation as this pot-firing job. The two 6" gun-tube extensions, bolted-on to the regular 9" gun tube, also are cast-iron. At the combustion-chamber end of the gun tube is one part not made of cast-iron. It is the choke ring that helps to govern the flow of air into the fire-box. It's made of tougher stuff than cast-iron, for it's a nickel-chrome steel casting. Incidentally, that's a standard part of the domestic oilburners of this make, the Model TUV burners.

On this particular installation, the fueloil is distributed to the burners through a piping system that puts 20 pounds oil pressure on the burners, and their oil-pump units of course, with the burners idle or running.

That unusually high oil pressure on the burners caused the designer of the system to worry about the shaft seals of the pumps in the burners. It turned out that the particular burner models selected had shaft seals made up of solid-metal, rigid parts, and not including flexible members such as flexible diaphragms or flexible bellows. These particular shaft seals are unusual in being able, according to the oilburner manufacturer, to work properly and normally under oil-feed conditions that put up to 100 pounds pressure on the shaft seals.

The designer of this system for oil-firing chemical pots warns other oilburner engineers, who may want to use his ideas to design similar systems, to check carefully on that problem of how much pressure will be put on pump-shaft seals by the system that gives fueloil to the burners. A certain line or make of oilburners may include some burner models good for unusually high oil-feed pressures, and other models good for only the low and usual oil-feed pressures.

Converting chemical pots, of the kind shown in the drawing, from gas firing to oilfiring has paid off well. The change from the blue flames of gas burners to the incandescent flames given by the oilburners is reported to have increased production by 100%. The improvement in safety cannot be reported percentagewise, for it seems to be practically infinite.

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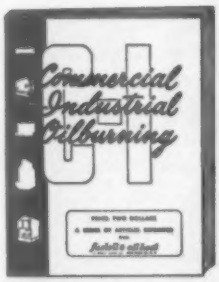

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Truck Talk

by Chet Cunningham

HAVE you given the cooling systems of your fueloil trucks a good summer clean out yet? If you haven't it's high time you did. Get that anti-freeze out of there. Do the job this way:

- Drain all old coolant. If extensive deposits of rust show, flush the system vigorously, use a cleaner if needed.
- Clean coolant does not mean inhibitors are still effective. Steel and iron rust shows up red, other metals can corrode with no coolant discoloration.
- Look for leaks in hoses and hose connections, around "freezeout" plugs, gaskets, water pump seals and heater fittings.
- Fill radiator with soft water and a good rust inhibitor. Inhibitors lengthen the life of a cooling system. Use one.
- Don't save used anti-freeze, even permanent type. "Permanent" means only that it won't boil away. It loses its rust inhibitor's effectiveness after one season's use. Throw it out, that costs lots less than buying a new engine.
- Refill the system, run the engine and check for water leaks. Be sure the radiator core is free of dirt and insects by blowing it out with an air hose. Check temperature gauge. Check for coolant loss.
- A good cooling system check right now, may save you a lot of heated engines and maybe some down time this summer.

A new type of Westinghouse head lamp throws more light where truckers need it most—on the right hand side of the road. The firm says it produces a searchlight effect that lets drivers see through and past headlights of oncoming vehicles. The idea is that with these new lamps, the trucker has almost the same type of beam penetration that new cars have with their four-lamp headlights.

Seen any "Yield Right of Way" signs lately? More and more of them are going up, and they can be very helpful to truck drivers. When a yield sign replaces a stop sign, all you have to do is slow, see that the way is clear, and move on through. If someone is coming from the other way or from either side where there are no "Yield" signs, they have the right of way, you stop.

When you move through the "Yield" sign, be sure you don't hit anyone. If you do, and the other rig did not have a "Yield" sign, then you're at fault no matter who hits who. It's up to the driver with the "Yield" sign to check traffic and move ahead only when there's no vehicle so close that it is an immediate hazard.

In city driving, these signs can often mean you don't have to come to a complete stop but can "slide through" Yield signs.

You probably are spending too much money on batteries. A good battery maintenance plan can save you money. A survey taken by Goodyear Tire and Rubber company shows these causes for battery failures:

526—over or undercharging.
147—insufficient capacity, overcycling.
102—insecure installations.

Those 526 breakdowns mean one thing, those trucks had either no regular or poor maintenance of the voltage regulator. This is the rig that sets and maintains the setting for the generator charge. As you know, the regulator determines how much charge is going into your battery from the generator. This should be just the amount you are using through discharge operation. If it is more, your battery overcharges, heats up, uses water, and corrodes the plates. If it is less, then your battery runs down and must be recharged in the shop.

The only way to be sure your battery is getting the right amount of charge is to check it regularly with a voltage meter. Goodyear suggests to use the same man who waters your batteries. He should test each cell and mark the volts down on a special record card for each battery.

Any big difference between cell charges in the same battery, may mean a new battery is needed. Readings will fall into one of four areas: #1 means the battery is discharged; #2 means it is low and needs recharging; #3 means all is normal; #4 means it is overcharged.

Excessive readings outside the normal zone means your regulator for that battery needs adjustment. Remember, the factory setting on your generator is the average, your equipment may need a different setting.

During your battery maintenance, also check for dirt and corrosion on top of the battery and for loose carriers and connections. Both of these can rob your battery of its power. Check your battery weekly this quick and easy way, and it can save you money by catching trouble early. Almost all battery manufacturers will help you set up a battery maintenance plan.

What's ahead in truck tires? The tire outlook is for improvements with stronger, lighter and cooler running tires.

Tubeless tires are still gaining. Today's tubeless is an entirely different animal from the one introduced three and a half years ago. Among tubeless advantages are less inventory cost, less original cost, less weight and better servicing.

Most tubeless tires run up to 15-25 degrees cooler than tube type tires. That means better blowout protection and longer life. Small cuts and bruises that often lead to blowouts in tube type tires are quickly detected as slow leaks in tubeless tires. Tube chafing is also eliminated with tubeless.

Tire mounting, especially on big heavy tires, is easier, and the tubeless tires hold puncturing objects tightly with little or no loss of air. Most punctures may be repaired at the end of the run. This means fewer delays on the route.

Of course to get all of these advantages a regular tire inspection program must be used.

Tires of the future: lower in profile, more nylon, and soon, all tubeless.

At his Chicago oil depot, Mr. C. E. Lund talks to Ben Kijek, driver of this Model AC Mack which was purchased in 1925 and is still in daily use. Recorded downtime on this indestructible old timer has been only a relatively few days in its entire 34-year life! Flanking famous old truck are two other members of Lunoil's Mack fleet—a B-61ST six-wheel tractor and a handsome N-42S cab-forward fuel oil truck.

Here's brand loyalty that has paid off for 42 years

Mack trucks were working for Chicago's H. N. Lund Coal Co. during the first World War . . . and some of the famous old Mack AC Models which the Lunds bought back in the "roaring twenties" are delivering coal to this day . . . doing a good job 34 years later. Amazing? Not if you know how Macks are made. Finest engineering; finest workmanship; finest materials. That's the secret of the dependability, efficiency and long life of a Mack truck.

Today the Lunoil Division of the H. N. Lund Coal Co. still relies on Mack trucks for dependable fuel oil handling. On the long hauls from refinery and bulk plant, the big Mack B-61ST's do the job; while the handsome, husky N-42S cab-forwards make retail fuel deliveries through heavy traffic from one end of Chicago to the other.

The sooner you put Macks to work in your own operation, the sooner you'll start to realize the tremendous profit potential of their bonus cargo capacity . . . their swift mobility in congested areas . . . their strength, stamina and dependability. Check your Mack branch or distributor for full details. He'll help you choose the Mack best suited to your requirements. Mack Trucks, Inc., Plainfield, New Jersey. In Canada: Mack Trucks of Canada, Ltd.

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For over 30 years Quaker has been the leader in the development and improvement of truck and trailer tank equipment. Go over any modern piece of equipment and see what a large percentage of the improvements in design and construction have been developed by Quaker City. To take a specific item: you will find lightweight tubing of larger inside diameter than piping, with long sweep elbows replacing sharp mitered joints, all joints welded and tested. Features like these explain why so many large oil companies ask us to construct pilot models for them before they go ahead with a large program.

Get the benefit of standardization where it will save you time and money, but at the same time enjoy the advantages of a tank designed to fit your individual requirements by specifying Quaker City on your next order. Whether you want a simple job like our "William Penn" or a deluxe unit like our "Fawn," we can take care of your needs.

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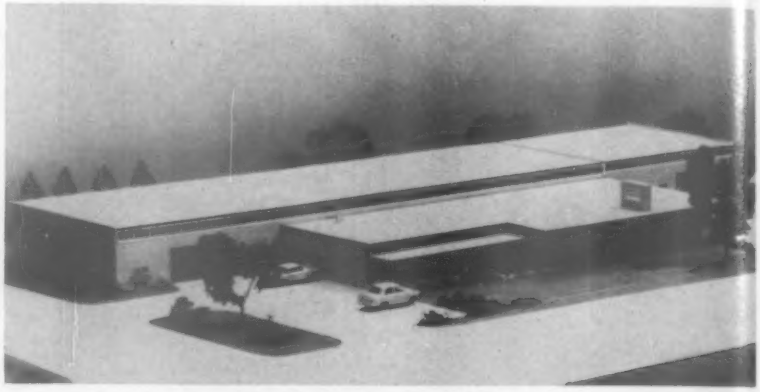
Siemon Manufacturing builds new Factory, doubles Space

SIEMON MANUFACTURING CO., manufacturers of Power-Flame industrial heating equipment, has doubled its available space with a new plant in Grandview, Mo. Complete factory and laboratory facilities, as well as enlarged office space, are housed in the contemporary structure.



The company was founded in 1949 in Kansas City and in 1955 moved to Grandview. Power-Flame Division, Inc., was created to market the company's products. Charles D. Jones is president of the firm; M. J. Murray, vice-president.

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Would you spend $95 a year to save up to 30% on your bookkeeping and trucking costs? That's what hundreds of users of the HIDY degree-day system are saving every year. With this system you can deliver more gallons per mile—make fewer trucks do the same job. Can be bought or leased. In use in all parts of the country. The most accurate, easiest to install, simplest to maintain degree-day recorder on the market—and that statement is backed by $1000 reward for anyone who can prove otherwise! Write for full story of this money-saving, work-saving plan—ask for Bulletin F-7. Please state whether you already operate on Degree Day system.

SOME TERRITORIES ARE still available for sales representatives. Write for information.

HIDY-BROWN RECORDER COMPANY

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American-Standard develops cooling direct mail Program

A PACKAGE direct mail program to develop leads for central residential air-conditioning sales has been developed for its dealers by the American-Standard Air Conditioning Division, New York.

Three mailing pieces are included in the package. Each is imprinted with the dealer's name and contains a business reply card. The program includes the mailing list which is custom tailored by actual homeowner name and address to cover the dealer's area.

Gibraltar Corp. of America to open Plants in Far East

NEGOTIATIONS for the opening of two plants in the Far East have been completed by Gibraltar Corp. of America, Brooklyn, N. Y. According to Alvin J. Polakoff, president, these plants will be located in Hong Kong, China, and Osaka, Japan.

Key administrative personnel will be sent from America within the next two months to set in motion the machinery for manufacturing steel boilers. Gibraltar now has distribution in France, Germany, England, Italy, and Holland.

NEW!

MODEL 02F3 PTO PUMP

quick, efficient fuel oil deliveries

Far left, 02F3 cutaway. Above, installation of 02F3.

EXAMPLE—APPLICATION AND PERFORMANCE

Through 100 feet of 1¼" hose and 1¼" nozzle. Pump safety control set at 150 psi.

RPM	GPM	PSI
600	54	53
720	70	77
825	85	103
940	98	128

Through 100 feet of 1" hose and 1¼" nozzle. Pump safety control set at 150 psi.

RPM	GPM	PSI
515	28	34
625	43	62
740	54	88
850	64	114
950	73	139

The above results obtained from actual field test. Suction line included: 3" internal emergency valve, 3" tubing, manifold, meter, air eliminator, outlet faucet, 3" three-way valve, suction tank and 2" horizontal check valve.

Time is money. Save time with the new Gorman-Rupp Model 02F3. These small, lightweight pumps give quick, efficient service.

The Model 02F3 pumps are recommended for: PTO ratio 1:1 of engine speed; PTO speed range of 600 to 1000 rpm, depending upon pump pressure desired.

Trouble free, sure priming, no check valve; Gorman-Rupp leads the field in petroleum transfer pumps.

See your Gorman-Rupp dealer today.

THE GORMAN-RUPP COMPANY

305 Bowman Street • Mansfield, Ohio

Operators Heat, Inc., named Sunheat Outlet in Baltimore

OPERATORS HEAT, INC., Baltimore, has been appointed distributor for Sunheat blended heating oils, effective June 1. Sunheat previously was distributed in the area by General Automatic Corp., which has been purchased by a major oil company.

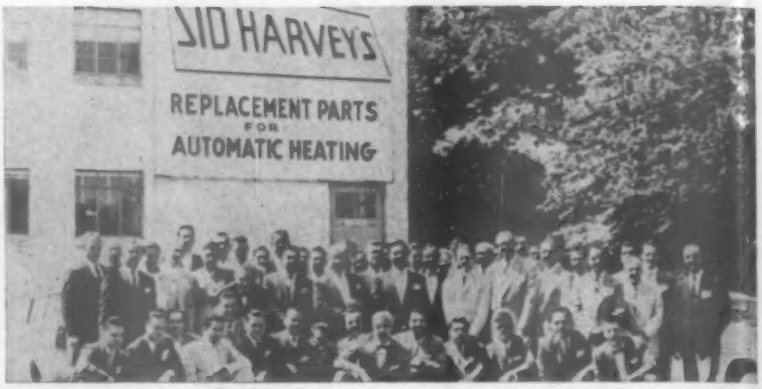
Operators Heat has been serving homes and industry in the Baltimore area with fueloil, coal, wood and heating equipment since 1925. J. Hollis B. Albert is president of the firm; John M. Myers is treasurer; J. Hollis B. Albert, Jr., is secretary. Albert, Sr., has been a leading industry figure for a number of years; he is past president of the Oil Heat Association of Maryland; past vice-president and Distribution Division Chairman, Oil-Heat Institute of America.

Carlin Co. marks Anniversary after ten Years in Business

ON JULY 17, 1949 John Carlberg and Ben Lindberg joined forces to launch Carlin Co. to manufacture the U. S.-Carlin line of oilburning equipment. Bert Watling joined the firm shortly thereafter as sales manager.

Now on the occasion of the firm's Tenth Anniversary, Carlin's bulletin, "Facts 'n Figures," notes that each year the company has achieved sales records which surpassed the previous year. Today, the bulletin continues, "Carlin ranks as one of the leading oilburner manufacturers in the country, with distribution in the world's major markets."

Ben Lindberg makes the further point that the company always has exercised close cooperation with all industry elements and has pursued a policy of a firm price structure and quality products to encourage customer loyalty and confidence.



Above is one of two groups of salesmen attending sales conference at Sid Harvey, Inc., Valley Stream, N. Y. In attendance were 110 salesmen representing the combined sales force of the 15 associated Sid Harvey companies. The men were addressed by the executive officers of the company on the new products and new manufacturing methods now in use at the Sid Harvey plant.

YOUR
AUTOMATIC HEAT IS ~~OUR~~ BUSINESS . . .

. . . AND E.F.M. OFFERS YOU MANY ADVANTAGES

- Direct Dealer Franchise
- Complete Line—Oil—Anthracite—Gas Boilers and Furnaces—Cast Iron and Steel
- Cooperative Advertising Program
- Equipment Display Plan
- Competitive Prices
- Field Assistance
- Dealer Sales and Service Bulletins
- Installation and Service Training
- Consumer Acceptance
- Customer Preference Can Be Met With One Line

You'll find many profit advantages with E.F.M.'s full line—Write or Call Today—

e·f·m
The Finest in AUTOMATIC HEAT
ELECTRIC FURNACE-MAN INC., EMMAUS, PA.
FURNACE BURNER UNITS—BOILER BURNER UNITS—CONVERSION BURNERS
OIL—ANTHRACITE—GAS

Announcing...

T-500

ROOM THERMOSTAT

Shown larger than actual size.

Here is a truly fine instrument — not just another thermostat. Its combination of beauty, accuracy and dependability are the result of years of research and development.

Yet, the T-500 is not high priced!

There is not space enough here to cover all of the outstanding features of the Model T-500. But descriptive literature is available for the asking. Just send a postcard to:

Signet Controls

3205 S. E. 13TH AVENUE. PORTLAND 2. OREGON

Fostoria Pressed Steel Corp. votes merger plan Approval

DIRECTORS of The Fostoria Pressed Steel Corp., Chempump Corp. and Zenith Engineering Corp. have approved a proposal to merge the three companies. The combined organization would be known as Fostoria Corp. and would continue intact the activities of the present companies.

Fostoria, with headquarters in Fostoria, O., manufactures water circulating pumps. Chempump and Zenith have Philadelphia headquarters.

T. I. Byrd, right, president, The Lau Blower Co., Dayton, O., attaches a 15-year service pin to the lapel of James B. Wallace. Charles C. Miley (left) and William J. Lohrey were presented with 20-year pins. All three men are sales representatives of the firm's blower division.

HAGO PRODUCTS

1120 GLOBE AVE., MOUNTAINSIDE, N. J.

***IN CANADA* — RICHARDSON, LTD.**

1169 Caledonia Road, Toronto

20 Years of technical Schools noted by Torridheet Division

FOR THE 20TH YEAR, the Torridheet Division, Cleveland Steel Products Corp., Cleveland, O., has had technical schools in its new modern schoolroom located at the Cleveland factory. Some 250 classes have graduated and the students have earned the Torridheet Certificate of Training.

The training hall is outfitted with the company's units of every type, including furnaces, boilers, water heaters and airconditioners. Students make actual installations and service adjustments on all types of equipment.

About 80% of the full week course is devoted to practical application with a written examination being given on the fifth day. Classes are limited to not more than 15 men. The school has been conducted for many years under the supervision of Duane W. Rouse, manager, sales engineering.

Improved group insurance Plan is offered by Standard (Ind.)

AN IMPROVED group life insurance program is being offered to dealers and jobbers of Standard Oil Co. (Indiana). According to Dwight F. Benton, sales vice-president, the plan provides higher amounts of protection during the years of greatest need.

For instance, jobber coverage begins at $20,000, decreasing after 38 as age increases and need diminishes.

Premium truck, regular price!

You buy *more* than a truck when you buy Dodge. You buy a quality hauler that's loaded with muscle, outstanding in performance, famous for dependability, and low in price. Big choice of tandem, C.O.E. and conventional models—all "Job-Rated" for both straight-truck and tractor-trailer application. Advanced Dodge V-8 engines give you up to 234 hp. on regular gas. Rugged main-auxiliary transmission combinations provide up to 20 forward speeds for greatest operating flexibility! Power steering, 100% air brakes available.

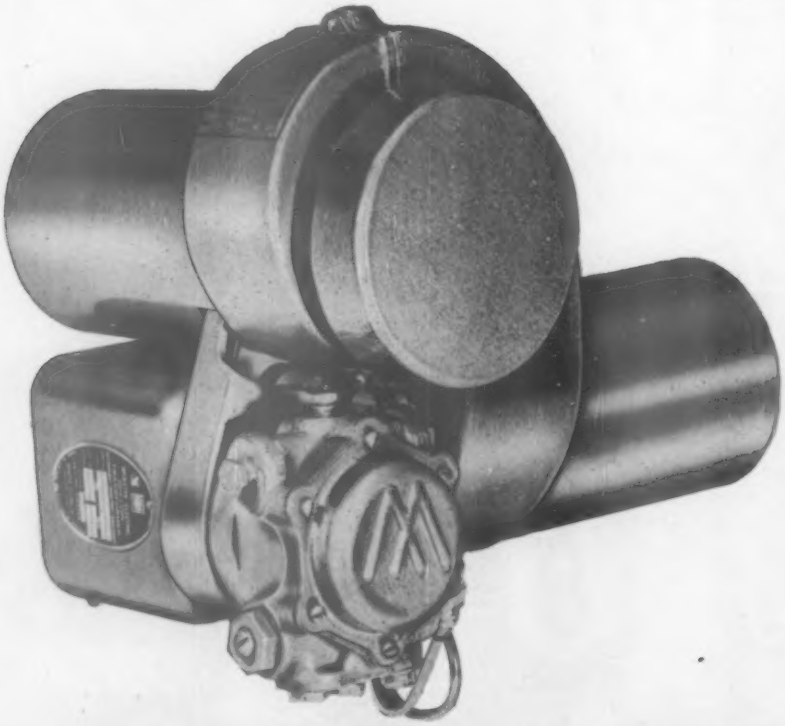
This year Dodge is truly the premium truck at the regular price . . . the BIG BUY in the low-price field. Find out more from your nearby Dodge dealer. He'll show you exactly why . . .

today, it's real smart to choose Dodge Trucks

On flat or hilly roads, under light or heavy loads . . . modern Dodge V-8 engines deliver the kind of performance that keeps you right on schedule. Power-Dome combustion insures top power from regular gas. Rugged internal components insure long-lasting efficiency. Thrifty Sixes offered in low- and medium-tonnage range.

At first we didn't believe it ourselves!
Burning .65 gph with these results:

10% CO_2 AT FIELD SETTING
ZERO SMOKE/NO PULSATION



HI-PERFORMANCE

Check the possibilities of making it *your* big sales advantage!

New combustion head

New blower and motor

New fuel unit

It's one of those things you have to experience to *really* believe ... field results with the Lennox HI-PERFORMANCE oil burner are that startling! Because this is so important to you as an oil heating dealer, let's start at the beginning:

YOUR PROBLEM ... Competing fuels are making it tough for oil in the small and average home market. To stay alive and grow, oil burners have to offer economy, cleanliness and quietness. Until now, those virtues have been pretty scarce in the low-gallonage range.

THE ANSWER ... Progress is made only through change. So Lennox changed its concept of a high pressure oil burner. The first thing was to throw out the old practice of trying to put a low-gallonage combustion head in a conventional burner ... it never has been completely successful.

The problem called for a whole new burner ... a whole new arrangement of parts. We discovered that the burner's blower had to run faster. The fuel unit had to operate at a different speed. And a new combustion head had to be designed. The resulting Lennox HI-PERFORMANCE burner is new in looks, in size ... and most of all, in performance!

THE RESULTS ... Extensive field testing shows that the HI-PERFORMANCE oil burner is the answer to the challenge of other fuels.

Here is a clean, smokeless fire.

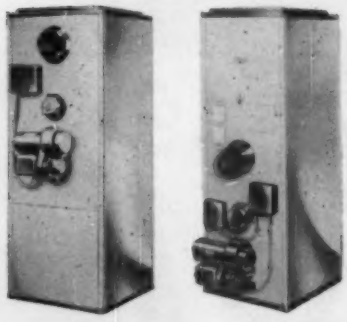
Here is absolute freedom from pulsation.

Here is dependability ... no start switch needed on motor; low maintenance.

Here is almost unbelievable efficiency.

Fuel savings of up to 50% have been reported where a furnace's good conventional burner has been replaced by a Lennox HI-PERFORMANCE burner! No other change was made in the heating system. A flue gas analyzer will show definite superiority of the HI-PERFORMANCE, but not as much difference as actual fuel bills indicate. Where, then, does the spectacular difference occur? It is in the unburned oil vapor which flue analyzers do not measure. Even with a good conventional burner, much unburned hydrocarbon escapes up the flue. But the Lennox HI-PERFORMANCE burner burns it.

Result: more heat for the money. The reason for this complete combustion is the perfect and unique mixing of air and oil by this entirely new burner.



TERRIFIC ON LENNOX OIL FURNACES

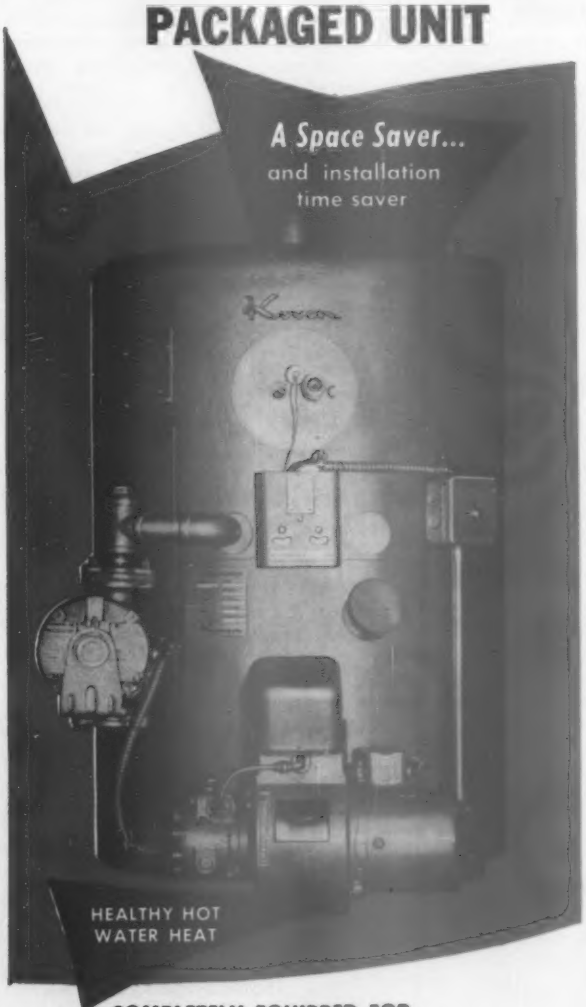
The HI-PERFORMANCE burner is standard equipment on the smaller Lennox furnaces where it is resiliently mounted for even greater quietness. A wonderful team for spectacularly successful oil heating. Conversion burners available.

OIL BURNER BY *LENNOX*

Lennox Industries Inc. founded 1895 • Marshalltown, Iowa • Columbus, Ohio
Syracuse, N. Y. • Fort Worth, Texas • Salt Lake City, Utah • Decatur, Ga.
Los Angeles, Calif. • Des Moines, Iowa • Lennox Industries (Canada) Ltd.
Toronto, Montreal, Calgary and Vancouver

Koven

GAS OR OIL FIRED PACKAGED UNIT



COMPLETELY EQUIPPED FOR FAST INSTALLATIONS

- PLENTY OF HEAT AND HOT WATER
- FUEL-SAVER — economical to operate
- FULLY WIRED AND ASSEMBLED READY TO INSTALL IMMEDIATELY
- FITS THROUGH A 30-INCH DOOR in easy one-man handling crate
- BUILT TO FIT THE MODERN HOME

QUICK AS HELLO AND GOODBYE

Nationally Advertised

L.O. KOVEN & BRO., INC.

RICHBOYNTON ROAD, DOVER, NEW JERSEY

NEW PRODUCTS

Utilitron's "Spotfinder" will locate fill Pipes hidden by Snow or Shrubs

"SPOTFINDER" is a simple indicator developed to locate fill pipes hidden by snow, grass or shubbery. It consists of a simple protractor with a movable pin, which can be locked at any angle.

The device is clamped to the tank vent pipe or fastened to the house or building. A separate indicator arm carried by the driver is placed over the pin and a steel tape measure is hooked over the arm. The fill cap location then can be pinpointed with the arm serving as an accurate guide for direction and the tape measuring the distance.

A reflector on the indicator permits the device to be used after dark with a flashlight. Proper angle and footage to the fill pipe can be noted on the delivery ticket or stamped on the "Spotfinder" itself. Priced at 75¢ each in quantity.

Virgil Signore, fueloil dealer, who operated Fairfield Oil Co., Stamford, Conn., developed the device. Full details are available from:

Utilitron Corp., 240 Elm St., New Canaan, Conn.

GOING-GOING-GONE
THEY SELL!
Klemm® MICRO
FUEL OIL FILTERS
KLEMM FUEL OIL FILTERS never stay long on your shelves. Good design and performance, attractive packaging and prices make them sure-fire best sellers . . . the kind that puts profit in your pocket. Always stock KLEMM . . . they sell!
PK-150 U/L
JR-60
FF-430 U/L
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SEND FOR complete literature and prices. Do it today.
Millions Since 1932
KLEMM PRODUCTS
Division of
KLEMM AUTOMOTIVE PRODUCTS COMPANY
1722 North Damen Avenue • Chicago 47, Illinois
EXPORT: Guiterman Co., Inc., New York 4
CANADA: Elgee, Ltd., Toronto

I give Expert Service and I use . . .

The BOSTON COMBUSTION HEAD to correct PULSATION and POOR CO_2

Adaptable to any pressure atomizing burner. Available for 4", 5" and 6" blower tubes. Adjustable air shutters permit obtaining high efficiency sunflower flame or efficient non-pulsating flame.

Comes complete—easily installed.

A PROFIT MAKER

"My Customers appreciate the DIFFERENCE!"

For details, write to:

BOSTON MACHINE WORKS COMPANY
Oil Heating Supplies Div.
7-17 WILLOW STREET
LYNN, MASSACHUSETTS

WHISTLER fill-signal

Can be installed (in less than six minutes!) in existing installations without cutting or disturbing vent-pipe in any way.

This improved, unfailing signal works on an entirely new principle; fits into the vent-pipe inside the tank. It's well-built, safe (Underwriters Approved), easy to handle, and lower priced to bring you more sales.

The Whistler — Model D — another fine product from the makers of Galongage, Guardian, Fil-thru.

APPLIED MECHANICS COMPANY

381-389 CONGRESS ST., BOSTON 10, MASS.

NEW MARKET

Autopulse has been vigorously promoting Lifters for mobile homes since August, 1958. Consistent advertising started then, and is continuing. It appears in:

TRAILER TRAVEL
MOBILE HOMES
TRAILER DEALER
TRAILER TOPICS
TRAILER PARK MANAGEMENT

No other Lifter line gives its dealers this kind of support. No lifter but Autopulse is getting known in this brand new market.

Cash in — with Autopulse! Write for full information.

Electric
AUTOPULSE
Division
WALBRO CORPORATION
Cass City, Michigan

Zone control Package by White-Rodgers made for single-pipe hydronic Systems

ZONE-A-LOOP (illustrated) is a zone control package for single-pipe hot water systems designed by White-Rodgers. Each zone is equipped with a low-voltage "Fashion" thermostat and a small Zone-A-Loop automatic water valve. Of rotary design, the valve allows unrestricted flow through the feeder pipe when thermostat is not calling for heat. The valve is mounted at either inlet or outlet of the radiator. On call for heat, the valve's stem rotates and the flow in the feeder pipe is divided: part diverting to the radiator, the rest bypassing to the next zone.

The company has also introduced a new combination control for zoning forced air heating-cooling systems.

Made by: White-Rodgers Co., 1209 Cass Ave., St. Louis 6, Mo.

Temperature pressure relief Valves for water heaters made by A. W. Cash

A NEW SERIES of temperature pressure relief valves for water heaters has been introduced by Cash-Acme. The valves feature a patented thermostatic element with no fluids to leak out. The NV Series automatically closes tightly after relieving because of temperature or pressure increases. Valves are available with or without test levers, with or without 6" stems, and in ½" or ¾" male inlet connections, with relief settings from 50 to 200 psi.

Made by: A. W. Cash Valve Mfg. Cor'n., Decatur, Ill.

Nichrome electric heating Element used in Mueller furnace Humidifier

MUELLER'S 50-800 furnace humidifier provides humidification at the rate of up to 26 qts. per day with an 800-watt Nichrome electric heating element immersed in the water pan. A dial setting on the unit or humidistat in the living area controls evaporation.

There is no needle valve or float; water level is controlled by a counterbalanced reservoir pan actuating a solenoid valve. The unit installs in any plenum, branch or return air duct.

Made by: Mueller Climatrol Div., 2005 W. Oklahoma Ave., Milwaukee, Wis.

Chairman Joseph Morecraft, Jr. superintends the Jersey Turnpike Authority from his office overlooking a busy turnpike interchange. In another office miles away he finds time to supervise his own Solar Heat business.

Gulf Solar Heat Dealer Heads Nation's Busiest Toll Road

Morecraft trucks are a familiar sight in Central Jersey. People have been seeing them since 1925, when Joe started in business as a coal dealer.

JOSEPH MORECRAFT, JR. operates his own oil heat business . . . a thriving one, too! Yet he also finds time to be Chairman of the N. J. Turnpike Authority, the agency that runs America's busiest toll road. Joe handles the state job in time formerly needed for service problems.

"A man simply couldn't handle both the turnpike job and a big service operation in the fuel oil business," he says. "But I didn't have to make that choice. Thanks to new Gulf Solar Heat, time-consuming *service calls are kept to the minimum*—sparing me for other important work.

"Gulf Solar Heat burns so clean that calls for service have dropped way off. And our many satisfied customers have noticed the difference. Of course, we still make summer clean-ups to make sure everything's all right. But we don't find deposits, dirty nozzles or clogged filters."

HOW ABOUT YOU—interested in getting ahead with new Gulf Solar Heat? *Phone your nearest Gulf office today!* Get the complete story on why it pays to become a Gulf brand reseller.

Gulf Representative Charles Simonds helps Joe Morecraft plan a new sales campaign with the 1959 Gulf Direct Mail Program. Vice President and General Manager Guy Karz also sits in.

Go one better—Go Gulf

GULF
SOLAR HEAT
heating oil

fuel oil & oil heat

American Standard adds two Lines of oilfired winter Airconditioners

A NEW upflow model oilfired winter airconditioner in four sizes from 84,000 to 140,000 Btu at bonnet, and a new counterflow unit in three sizes, 84,000, 95,000 and 112,000 Btu at bonnet have been introduced by American - Standard.

The new units are shipped completely assembled and wired, including burner and primary control. The upflow model is 60" high and the counterflow only 65" high. They have a prewired central control station.

Made by: Air Conditioning Division, American-Standard, 40 W. 40th St., New York 18, N. Y.

New strap Hanger for Ducts by Maurlee is adjustable to Spacing between Joists

MAURLEE CO., INC., now has in production a new duct strap with greater rigidity than conventional hangers. This hanger is easily adjustable to any spacing between joists and any size joists.

Made by: Maurlee Co., Inc., South Evergreen Ave., Woodbury Heights, N. J.

these two can mean better business for you!

NOW! Two coin-meter credit controls to eliminate collection problems . . . cut fuel oil delivery costs . . . reduce accounts receivable . . . and make doing a better business easier.

Type B-15 Type B-10

1. NEWEST METER "PAY AS YOU USE" TYPE B-15

The most recent development in meters. Allows customers to pay in quarters. All customers can be on degree-day basis . . . all fuel is paid for as it is used.

2. BUDGET METER BUDGETED MONTHLY PAYMENTS

The first really effective means of budget payments for fuel oil. The heating bill for the season is computed on a monthly basis. Budget prepayments keep the heat . . . and all sales in

Both meters are easy to install . . . more than pay for themselves in effective collections and lower delivery costs. Customers like the budget convenience and easy installment method of budget metered service.

Mail coupon today for complete profitable facts and SPECIAL INTRODUCTORY OFFER!

BUDGET METER CO.

ARCH ROAD • WESTFIELD, MASS.

Please send facts and figures about both new Budget Meters — Type B-15 and B-10.

NAME .....

COMPANY .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

NEW! *Radiant* Glass Lined **WATER HEATERS**

(Direct Oil-Fired)

FROM CARTON TO INSTALLATION IN ONE EASY STEP

Completely Wired!
Completely Mounted!
Completely Assembled!
It's a Completely Packaged Unit Ready for Installation!

FEATURES:

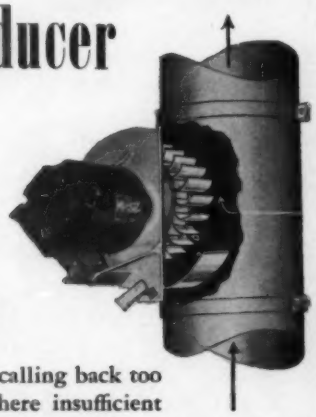
- 10 Year Guarantee
- 3 Models: 135 GPH — 200 GPH — 270 GPH
- Highest Guaranteed Recovery
- High Temperature Combustion Chamber
- Simple to Clean and Service
- Fully Insulated Tank
- Complete with RADIANT Oil Burner and Controls
- Other Series Available from 300 G.P.H. to 6000 G.P.H.

Write for Literature

RADIANT UTILITIES CORPORATION

8817 18th Ave., Brooklyn 14, N. Y.

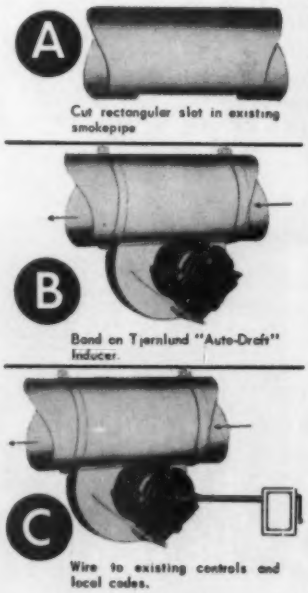
TJERNLUND "Auto-Draft" Inducer



Solves Your Problem Draft Jobs!

CHANCES ARE, you're calling back too often on certain jobs where insufficient and unstable draft is causing smoke, noisy starts, and basement sooting. You'll completely eliminate these unnecessary service calls, and make additional profits, when you *Guarantee Draft with "Auto-Draft".*

Simple as A-B-C to Install!



Only TJERNLUND has all these Features:

- Heavy Duty construction.
- Nationally known motor.
- Light weight.
- Quiet Operation.
- Built for years of service.
- Venturi-type operation.
- Doesn't rob furnace room of combustion air.
- Uses minimum smoke pipe length for mounting.

At your Jobber, or Write:

TJERNLUND MFG. CO.
2140 Kasota Ave., St. Paul 8, Minn.

The BEST LOW COST Automatic Humidifier For Project Jobs!

Model P-10 with 5 Evaporator Plates and all fittings

FAIRWAY

AUTOMATIC HUMIDIFIERS

First in
- SIMPLICITY
- EFFICIENCY
- ECONOMY

- LOW COST
- TROUBLE FREE
- QUICKLY INSTALLED

- Unbreakable Glass Fiber Evaporator Plates with Rustproof Drain Clips—Faster Evaporation
- No Float Adjustments—Foamglas moisture-proof Cells give Peak Floating Efficiency
- One Model Fits all Furnaces, all Water Pressures, from 5-175 lbs. without Adjustments

FOR THE FULL STORY, TEAR OUT AND MAIL TODAY

FAIRWAY DIVISION 13085 Dixie Street, Detroit 39, Michigan
Please give me full particulars on new Model P-10 Fairway Automatic Humidifiers.

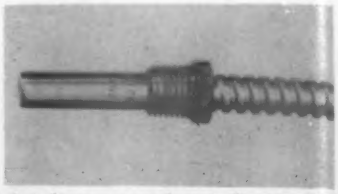
Name_____

Address_____

City_____ Zone____ State_____

Vulcan miniature electric Heater designed for heavy oil Equipment

THE "MINIWATT" heater by Vulcan provides low heat for oil in exposed fuel lines on industrial burners where oil tends to congeal during shutdown. The small heater can be "teed" into 1" fuel lines in locations beyond solenoid oil valve where no heated oil can be provided from main electric heater during shut down. It is rated at 40 watts, 230 volts.



Made by: Vulcan Electric Co., 88 Holten St., Danvers, Mass.

Eight Sizes of flow Regulators now manufactured by Taco Heaters, Inc.

TACO HEATERS has introduced a new line of flow regulators in eight sizes from 2 gpm through 8 gpm. Bodies are brass and tapped ½" for sizes 4 gpm and ¾" for the larger sizes. Control is obtained by the change in size and shape of the self-cleaning orifice. Designed for use within range of 20 to 125 psi and temperatures to 160°F.

Made by: Taco Heaters, Inc., 1160 Cranston St., Cranston, R. I.

this WALKER SHUR-FLO Draft Inducer-Regulator Unit...

ENDS DRAFT PROBLEMS RIGHT FROM THE START...

MODELS For Gas . . . Oil . . . and Solid Fuels!

THE INSIDE STORY OF SHUR-FLO EFFICIENCY

- Hi Volume Self-Feathering Fan
- Self-Cleaning Blades (No soot build-up)
- Stainless Steel Shaft, Hub, and Blades.
- Quiet, burn-out proof motor
- Silicone oiled bearings
- Extra rigid mountings.
- Extra heavy gauge galv. steel construction.

"I don't fuss and fret with uncertain draft anymore since Walker brought out this low-priced draft inducer-regulator combination. Now, I install Walker inducers on all my jobs. That puts me way out ahead, because with good draft I know every job will be exactly right from the start."

"Most Efficient Draft System Ever Made"

Say Heating Contractors, Architects, Home Owners

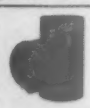
Draft problems are eliminated with a Walker Shur-Flo Control (Pats. Pending) in an oil, coal, or gas-fired installation because it's the SUREST DRAFT SYSTEM ever devised.

Here's an economical draft inducer that's a fool-proof answer to every draft problem from older heating installations to modern, low-roofed houses. You just install it and forget it. What could be better?

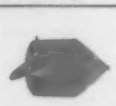
Moreover, the Walker Shur-Flo with fan operated draft inducer moves ONLY flue gases; does not suck in outside air. Building and home owners like the Shur-Flo because it runs quietly, costs less to operate, and requires little power. You'll like the Shur-Flo because it installs quickly at any angle—vertically, horizontally, or at a pitch—and virtually eliminates costly callbacks and corrections.

There's a Walker Draft Control scientifically designed to meet every draft problem regardless of fuel. 28,000,000 in use prove efficiency. The standard of performance for the industry.

ROYAL PURPLE for smaller central heating plants



JUNIOR LINE central heating budget control



DOUBLE SWING for gas fired equipment

VENTURI CAP for heating and ventilating

For full details, see your supplier or write direct

WALKER MFG. AND SALES CORP. 1750 Penn St., St. Joseph, Mo.

The ULTIMATE in MODERN RADIANT HEATING

POWRMATIC "JET"

Fastest, lowest cost, oil-fired domestic hydronic packaged unit ever developed.

POWRMATIC HYDRONIC "JET" RADIANT PANELS

For radiant warmth from floor to ceiling. Small, unobtrusive, one-piece construction. "You can feel the heat, but can't tell its source."

KRESNO-STAMM CORPORATION

POWRMATIC JET HEAT DIVISION

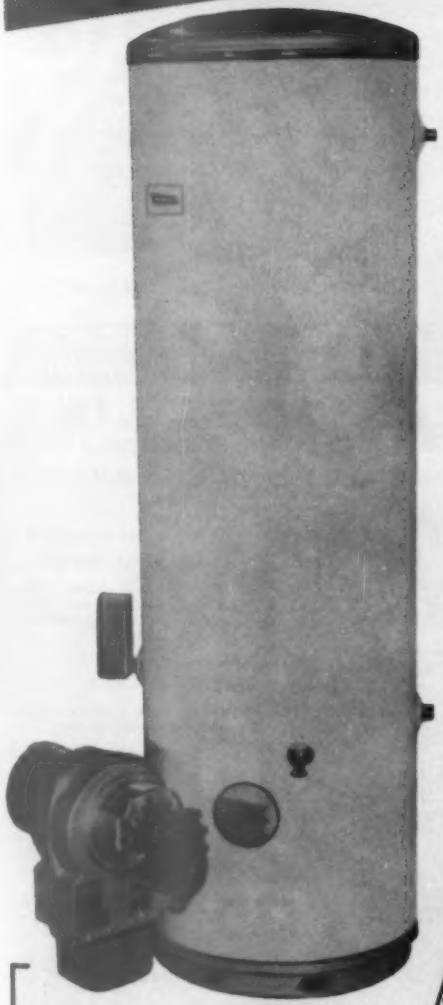
FINKSBURG, MARYLAND, U.S.A.

ALL THE HOT WATER YOU CAN USE - - -

AT A COST OF ONLY $4.00 A MONTH (AVERAGE FAMILY)

WITH SID HARVEY'S® OIL FIRED WATER HEATER

With a Gun Type Oil Burner



LOW COST
That's right, a home owner can have all the Hot Water he can use, at a cost of $4.00 a month or less. Eligible for F.H.A. terms with NO DOWN PAYMENT.

FAST RECOVERY
30 gallons of Hot Water in 15 minutes with the 30 gallon model. Quicker on larger models. That's 5 to 6 times faster than any other type Water Heater on the market.

5 TANK SIZES – TWO TYPES
A size for every use, bungalow, apartment house, restaurant, motel, etc. Either copper or glass lined tanks.

CLEAN, CLEAR HOT WATER
Glass lined and copper tanks are rust and corrosion free. You get crystal clear Hot Water. Magnesium anode assures extra long tank life.

AVAILABLE AT ALL SID HARVEY STORES

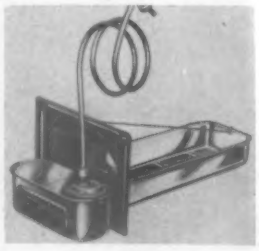
GET THIS SALES HELP *FREE*
Attractive leaflet in color, with your name, address and phone number. Ask for it on your letterhead.

SID HARVEY INC.
VALLEY STREAM, NEW YORK

Fueloil & oilheat

Stainless steel Vaporite Humidifier operates on water level Principle

A STAINLESS STEEL Vaporite humidifier recently announced employs the water level principle of operation. Model No. 999 has been styled for greater sales appeal and re-engineered to improve working parts and eliminate service callbacks. Stainless steel construction minimizes corrosive damage.

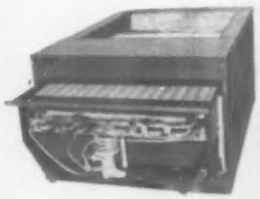


The humidifier has a new type diaphragm seat; it is adjustable to water pressure level.

Made by: Automatic Humidifier Co., Cedar Falls, Ia.

Moncrief evaporator Coils for downflow Installation

MONCRIEF evaporator coils designed for downflow installation develop cooling capacities of 36,000 and 56,500 Btu/hr when installed with Moncrief 3 or 5 hp air cooled condenser-compressor units. A flat coil, it is mounted horizontally and on a slant within a rigid steel frame. Zinc-coated drainage trays collect condensate water.



Made by: The Henry Furnace Co., Medina, Ohio.

Here's Proof:

SAVINGS UP TO 40%

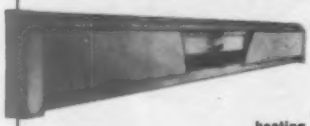
1. One customer who consumed as *high* as 3400 gallons of fuel oil for heating during one season, recorded consumption of 2200 gallons *after* the Bethlehem DYNATHERM Package Unit had replaced his oil burner during a heating season of comparable degree-day load.
2. Another purchased 3200 gallons, but found he required *only* 1700 gallons, after one of our dealers had sold him a Bethlehem DYNATHERM Package Unit.
3. A third cut his fuel consumption *in half* from 4600 gallons to 2475 gallons when degree-days totaled about 12% less.

The Bethlehem *DYNATHERM* offers other features that make your sale easier — *The Whirling Flame . . . Unit Engineering . . . Thermos Bottle Insulation . . . Beautiful Cabinet* . . . A Size For Every Need. The BIG FEATURE, of course, is that *IT PAYS FOR ITSELF IN 5 YEARS!*

BETHLEHEM FOUNDRY & MACHINE COMPANY
BETHLEHEM, PENNSYLVANIA, U.S.A.

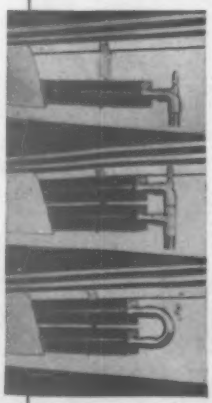
SINGLE OR DOUBLE TIER RADIATION SOLVES ALL HEATING REQUIREMENTS

Hoff PANEL LINE
HIGH OUTPUT . . . HANDSOMELY STYLED
BASEBOARD RADIATION



FREE-STANDING OR RECESSED

Rust-resistant electro galvanized steel. Full collar non-ferrous heating element. Snap-on accessories. Panels in 3, 4, 5, 6, 8 ft. lengths.



SINGLE TIER

For normal applications when heating requirements are at a minimum and sufficient wall space is available.

DOUBLE TIER PARALLEL

For cold climates where heating requirements are high. Also for bathrooms, kitchens and playrooms with limited wall space.

DOUBLE TIER SERIES

Equally effective as parallel, with additional advantage of returning to boiler or main without looping back under floor . . . essential where returning under cement slab floor is not practicable. Particularly suited for converting from old hot water or steam systems to baseboard.

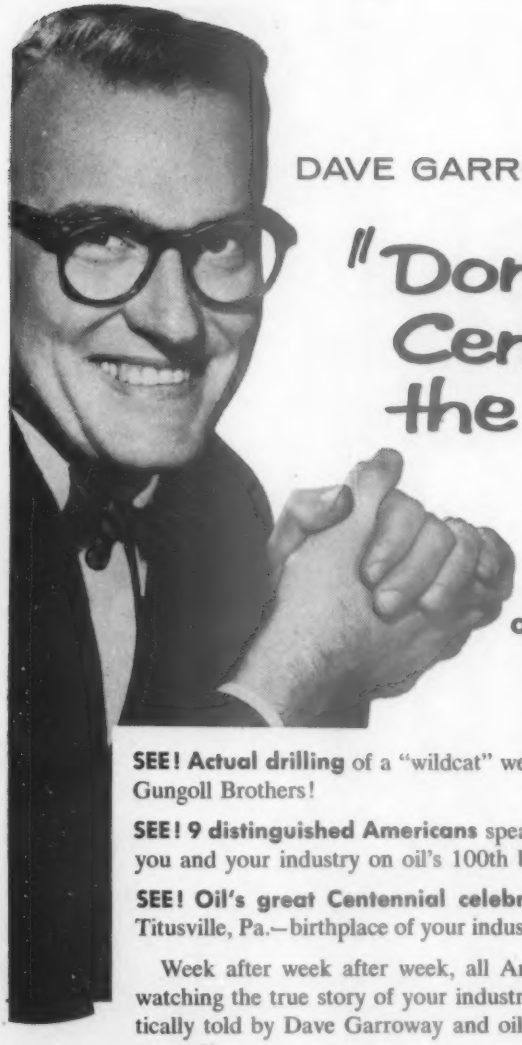
Hoff MANUFACTURING CO.
BETHANY, CONN. MEMBER I-B-R
WRITE FOR LITERATURE AND INSTALLATION DATA

NOW, MORE THAN EVER!

COASTAL DOES THE MOST FOR FUEL OIL DEALERS

COASTAL OIL COMPANY

EXECUTIVE OFFICES: 744 BROAD STREET, NEWARK 2, N. J.



DAVE GARROWAY SAYS:

"Don't miss your own Centennial story on the today show! NBC-TV!"

On the air now! A series of dramatic, on-the-spot reports telling the real story of oil and oil's first century.

SEE! Actual drilling of a "wildcat" well by the Gungoll Brothers!

SEE! 9 distinguished Americans speak up for you and your industry on oil's 100th birthday!

SEE! Oil's great Centennial celebration in Titusville, Pa.—birthplace of your industry!

Week after week after week, all America is watching the true story of your industry, realistically told by Dave Garroway and oilmen like yourself.

The TODAY Show has already presented the fabulous International Oil Exposition with oilmen from all over the world. Now you'll meet the Gungoll Brothers and their family and fellow workers . . . "wildcatters" who will take you along to northwest Oklahoma in their search for oil.

You'll share their dreams, their gambles and witness the actual drilling of their well, "Big Dave #1."

On August 27th, you'll see oil's great Centennial celebration, direct from Titusville, Pa.—the birthplace of your industry.

See this exciting new series with your family on June 25, July 2, 16, 30, August 13 and 27. Tell your neighbors and customers to see it, too! See the TODAY Show from 7-9 a.m. on the above dates on your local NBC-TV station!

All summer long, these 9 distinguished Americans will wish a happy 100th birthday to you and your industry:

Gen. A. Gruenther

Norman Rockwell

Donald Douglas

David Sarnoff

Harvey Firestone, Jr.

Frank Pace

Eric Johnston

Gen. Mark Clark

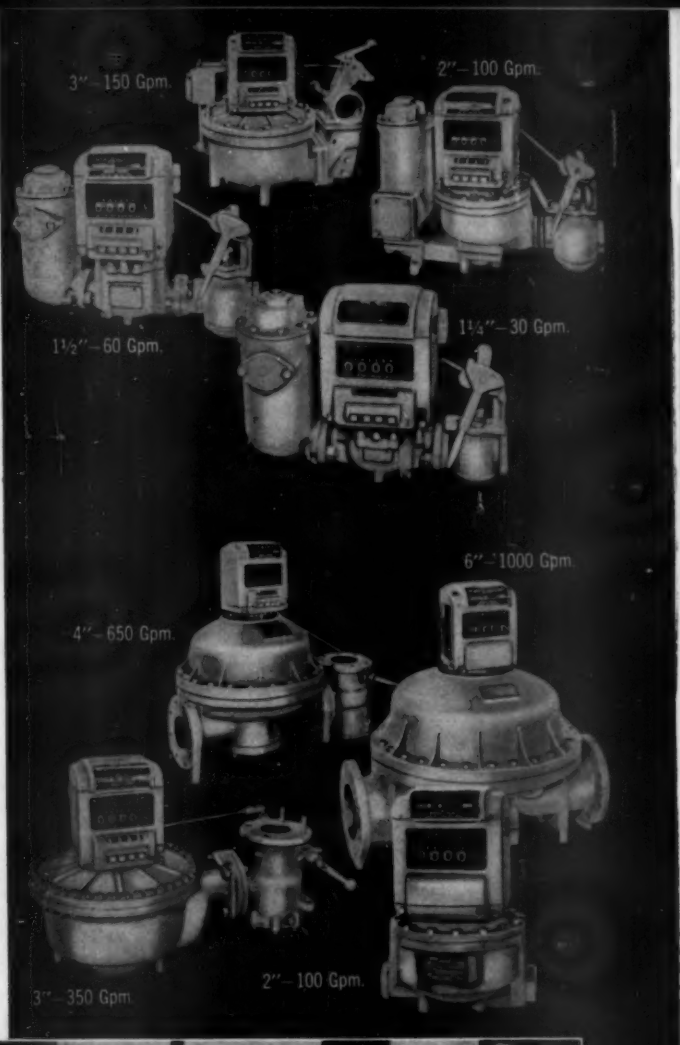
John J. McCloy

FOR TANK TRUCKS AND TRANSPORTS

. . . the standard of performance and accuracy coast-to-coast. Complete "Compact" metering systems adaptable to any truck compartment. Capacities to 150 gpm. Print-O-Meter and Auto-Stop features available.

for a better measure of profit . . .

there's an efficient NEPTUNE METER for every job

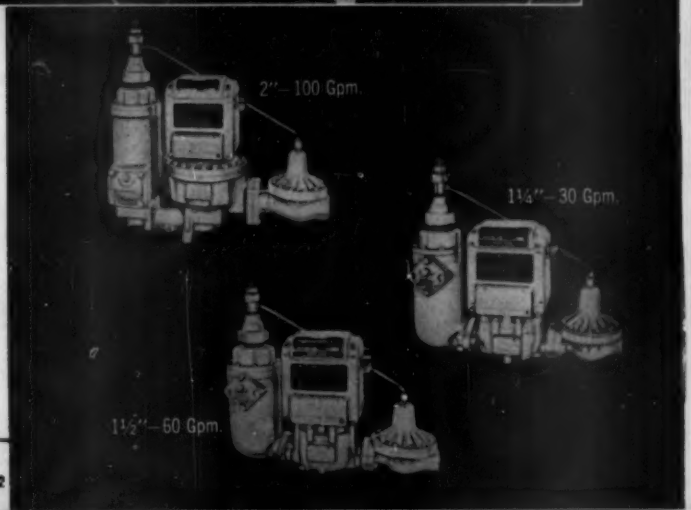


FOR BULK PLANTS and TERMINALS

. . . all sizes to 1000 gpm . . . all with the same dependable accuracy you now enjoy with Red Seal Tank Truck meters. Print-O-Meter and Auto-Stop features available.

REMOTE CONTROL METERING

. . . not just remote reading . . . but full remote control centered in the office. Automatic interlock prevents withdrawal of product until ticket is "printed in" by office register.



FOR LP-GAS METERING

. . . three sizes . . . each a complete LP-Gas metering system including all accessories. Design of vapor eliminator and differential valve reduces load on pump and needs no seasonal adjustments. Print-O-Meter available.

NEPTUNE METER COMPANY

19 West 50th Street • New York 20, N. Y.

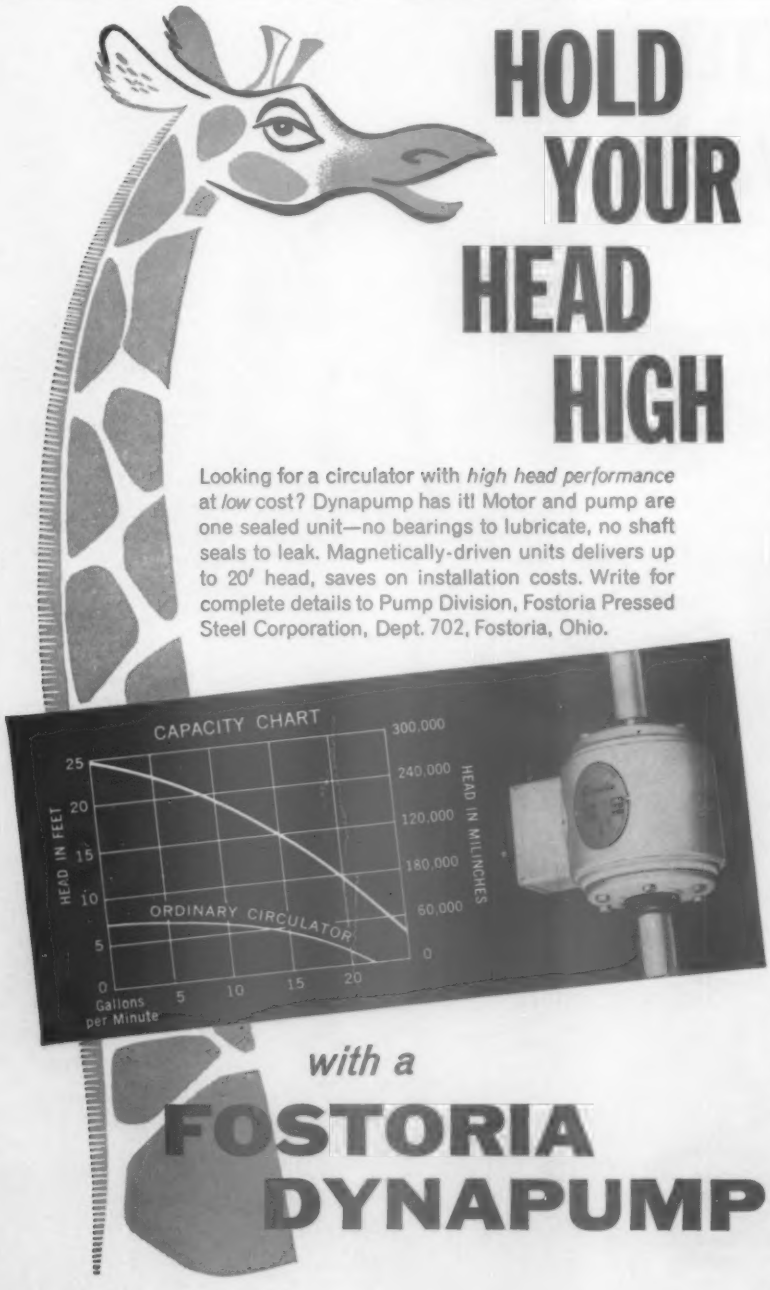
ARI appoints M. R. Martin to engineering Department

FREDERICK J. REED, chief engineer, Air-Conditioning and Refrigeration Institute, Washington, D. C., recently announced that Marcel R. (Dick) Martin has joined the engineering department as assistant engineer.

He will assist Reed with the engineering and standard committees of ARI product-sections on standards, certification programs, and other technical matters.

According to the Institute, a conference of Air Force personnel concerned with refrigeration and airconditioning equipment will be held at Wright-Patterson Air Force Base, Dayton, O., July 13-16.

Industry personnel who are interested in attending should get in touch with William T. Smith, chief of the Air-Conditioning and Refrigeration Section, Headquarters, USAF, Temporary Building 8, Washington 25, D. C., or with the Institute in Washington.


HOLD YOUR HEAD HIGH
Looking for a circulator with high head performance at low cost? Dynapump has it! Motor and pump are one sealed unit—no bearings to lubricate, no shaft seals to leak. Magnetically-driven units delivers up to 20′ head, saves on installation costs. Write for complete details to Pump Division, Fostoria Pressed Steel Corporation, Dept. 702, Fostoria, Ohio.
CAPACITY CHART
HEAD IN FEET
HEAD IN MILINCHES
ORDINARY CIRCULATOR
Gallons per Minute
with a
FOSTORIA DYNAPUMP

Oil Centennial Speech

(*Begins on page* 61)

and who in your estimation can give you the best value in oil heat for your money.

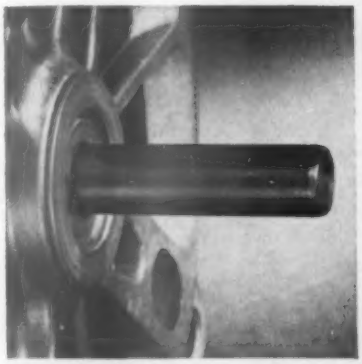
To give you an idea of the total size of their business, the equipment which oil dealers sell and the services they perform in all American communities amount to over half a billion dollars a year—this is in addition to the $2\frac{1}{2}$ billion worth of modern heating oil they deliver to our homes.

Individual enterprise and competitive growth has been a feature of the oil and the oilheating industries from their beginning a century ago. In oil heat, I could tell you a lot about improvements which have come from the many individuals and companies which make up the oilheating industry. Such developments include the clean, bright, modern delivery trucks with their quick and virtually automatic systems of servicing fuel into your house tank. This, incidentally, gives you a reservoir of heat right on your own property.

You certainly are aware of the fact that no matter how cold or variable the weather, your fueloil dealer always is able to keep an ample supply in your tank for all emergencies. He does this by a system developed in the industry called "degree-days." In simplified form, this means that the dealer keeps a running record in his own offices of the amount of "coldness" there has been every day and the rate at which your individual house needs to produce heat to keep you comfortable and warm. Degree-days are merely a yardstick, a way of measuring the cold weather, so that your automatic oilburner during a chilly spell does not consume all the heat you've stored in the form of fueloil in your tank. If it does, the degree-day system automatically lets your fuel dealer know it by the records he keeps and he refills your tank in time.

In the period since World War II, technical developments have added greatly to the efficiency of oilheating. As I told you earlier No. 2 fueloil has been improved. Oilheating equipment has been, too. New types of oil combustion heads have been developed which mix air and atomized oil with

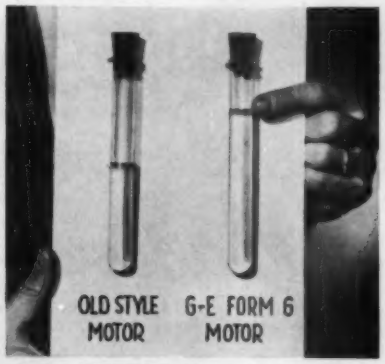
HOW GENERAL ELECTRIC OIL BURNER MOTORS SAVE YOU MONEY:



SHAFT PROTECTION—new gun-metal-like treatment of shaft resists rust so that the blower is always easy to remove.

"AIR-WALL" DESIGN transmits heat swiftly yet stops entry of dirt. Trip-outs are rare even in hot, cramped quarters.

FAST ROTATION CHANGE (simply reverse plug-in lead connectors "A" and "B" to change rotation) minimizes service stocks needed.



4-YEAR LUBRICATION practically eliminates reoiling nuisance. 50% more oil, effective retention system mean long life.

General Electric's oil burner motor offers you these outstanding advantages:

CUTS NUISANCE SERVICE CALLS. Exclusive "air-wall" design transmits heat swiftly, greatly reducing trip-outs which require time-consuming service calls. An invisible "air-wall" stops entry of dirt. Motor meets all Underwriters' Laboratory requirements for totally enclosed designs. Four-year normal lubrication life also helps to eliminate many nuisance calls for routine reoiling.

CUT INVENTORY IN HALF. Interchangeable rotation of G-E oil burner motors greatly reduces the service stocks you require.

CUT INSTALLATION COSTS. The G-E oil burner motor is over 50% lighter than older designs, permits easier handling and installation even in tight places.

LASTS LONGER. General Electric's famous wear-resistant switch, long-life lubrication, plus moisture resistant insulation system mean long, dependable life, fewer call-backs, more satisfied customers.

All these money-saving features are yours when you specify "G-E motors" on the oil burners you buy. They're also ideal for replacement purposes. For more information, write Section 702-96, General Electric Company, Schenectady 5, N. Y.

Progress Is Our Most Important Product

GENERAL ELECTRIC

scientifically-controlled efficiency. Today, there is a new type of oilburner on the market that needs little or no chimney. And, as another radically new development, there is a new gun-type, oilfired hot water heater. This produces hot water for your family at 4½ to 8½ times the rate of water heaters using competitive fuels and, in most places in the oil heat market, at considerably less cost per gallon of hot water. Even if this hot water heater runs only an hour or two a day, your family and all the appliances you have in your kitchen cannot use up its hot water as fast as it can supply it.

Over the years of its growth and development, oil heat has tended to go down in cost and up in its values. Your home today gets more units of heat from a gallon of modern oil and modern equipment than it did 20 or just a few years ago. The cost of heating oil has kept surprisingly low on the average—both as compared to other major household items and to other major competitive and modern home heating fuels.

Oil heat in this second half of petroleum's first hundred years has, for the most part, done its job quietly and with little fanfare in providing comfort and safe convenience for American homes. Nevertheless, it has freed families from age-old labor in keeping their houses warm in the winters. Oil heat—as the theme for the oil industry's first hundred years so clearly puts it—was "Born in Freedom." It continues to work in freedom.

We can see ahead how the improvement and development of oil heat and its equipment will be stepped up. New research programs and investment of money and human ingenuity are assuring this. We in the oilheating industry foresee that the economical cost at which oil provides heat for your home will be maintained. In fact, we believe this advantage to you will in the future be increased by higher costs or the anticipated rise in cost of other modern competitive fuels.

In the new century that is coming up for all of the petroleum industry and for the oilheating part of it, we know that new progress will be made. Today, two-thirds of all the energy used to produce all the goods and services in America comes out of oil wells. Those who look to the future realize that an even greater proportion of this mammoth energy output will be a share and a responsibility of the petroleum industry in future years.

I can assure you that we in the oilheating industry look forward to this further development in freedom and this future growth in progress. And we will continue to bring to you and to millions of American homes and families the comfort, the healthfulness, the safety and convenience of our automatic heating, together with all the progress and development which will continue to make oil a major and satisfying foundation stone of good living in future American homes.

(Another reminder: Additional copies of this speech and other materials for oilheating dealers to use observing the Oil Centennial are obtainable from the National Fueloil Council, 424 Madison Ave., New York 17, N. Y.)

Service-Master costs so much less in the long run that it's actually false economy to settle for any other make. Here's a truck body that has class . . . starting with the way it's put together and ending with the way it stays together without constant upkeep through the life of several chassis. See one, go over it carefully, get all the facts, compare and you'll know why Service-Master is your very best service body buy!

POWERS

Service-Master®

TWO MODELS . . . FOUR SIZES

for ½, ¾, 1, and 1½ ton chassis

A standard Model SM-15 (¾ ton) Service-Master is shown at top left. Below is the same model with a Canopy Top. All bodies are available for immediate delivery in all 48 states.

Before you buy any service body . . .

SEND FOR THIS FREE 6-PAGE FOLDER

It's loaded with valuable information

McCABE-POWERS BODY COMPANY

5900 NO. BROADWAY • ST. LOUIS 15, MO.

Management training helps build profits for Atlantic distributors

An intensive and practical training program—where distributors join together and tackle the toughest management problems—is helping to build bigger profits for those who sell Atlantic Heating Oil.

These meetings are real "shirt-sleeve" work sessions, with pads and pencils, facts and figures. The management training program includes these five major subjects: (1) Retail selling; (2) Credit and collections; (3) Delivery; (4) Bulk plants; and (5) Advertising and sales promotion.

Atlantic brings to this program 89 years' experience in the field of petroleum marketing. To this is added the personal experience of each attending distributor. The result is an exchange of real workable ideas which help build sales, help improve profit margins.

There are many other advantages of an Atlantic distributorship, including strong advertising support in newspapers, television and radio, engineering assistance, and a continuous dependable supply of top-quality products. Premium quality Atlantic Heating Oil is today's top value in clean, modern heating.

For detailed information about an Atlantic distributorship, call or write The Atlantic Refining Company at one of the terminals listed below.

TERMINALS AT:					
Providence, R. I.	Rochester, N. Y.	Boston, Mass.	Lebanon, Pa.	Wilmington, Del.	Spartanburg, S. C.
New Haven, Conn.	Syracuse, N. Y.	Akron, Ohio	Mechanicsburg, Pa.	Baltimore, Md.	Albany, Ga.
Albany, N. Y.	Wayland, N. Y.	Allentown, Pa.	Northumberland, Pa.	Salisbury, Md.	Atlanta, Ga.
Binghamton, N. Y.	Newark, N. J.	Altoona, Pa.	Philadelphia, Pa.	Richmond, Va.	Griffin, Ga.
Buffalo, N. Y.	Trenton, N. J.	Exton, Pa.	Pittsburgh, Pa.	Charlotte, N. C.	Macon, Ga.
Elmira, N. Y.	Gloucester, N. J.	Greensburg, Pa.	Reading, Pa.	Greensboro, N. C.	Savannah, Ga.
	Bridgeton, N. J.	Johnstown, Pa.	Williamsport, Pa.	Wilmington, N. C.	Jacksonville, Fla.

ATLANTIC
HEATING OILS

Propose new Oil heat Organization

(*Begins on page 45*)

Mobile, of a separate research project by only four jobbers—each contributing thousands of dollars for this purpose. They feel that with a "crash program" they can come up with something revolutionary in a very short time—and they are willing to invest their money in a research activity.

The National Fueloil Council which started in business on January 1 of this year, was the outgrowth of the OHMR organization, kept alive by "Mr. OHMR," Robert Gray. This was a modest effort requiring much hard work to get segments of the heating oil industry, especially the refiners, interested in the promotion of oil heat. Nevertheless, it sustained, grew a little, and today as an outgrowth, we have the National Fueloil Council which is supported by nine refiners, who have committed themselves to spend a total of $1,500,000 in 1959 in assisting local heating oil groups East-of-the-Rocky Mountains in an effort to strengthen our market.

But let me repeat—so there will be no misunderstandings—the National Fueloil Council, the Research Program, the idea of a central organization, and all the enthusiasm which has been created in the field in the past year will be in jeopardy in the very near future unless considerably more financial support is obtained from the many refiners who are still sitting on the sidelines. Just nine refiners are now supporting NFC and we only have a one-year commitment from API for funds for the Research Study. Certainly, no one here expects these nine refiners to carry the full load for the entire industry, and I don't believe they will for any length of time. There is much dissatisfaction today about the situation in the Midwest.

So why do we talk about a new central organization with added expenses and expect nine refiners to foot the entire cost covering promotion, research, and other activities? We must have added financial support now before positive action establishing a central organization can be initiated.

I say to you—time has just about run out—too much business has already been lost, and unless a great effort is started now, we will see in the next few years, for the first time in the history of our industry, an actual decrease in the demand for one of our principal products.

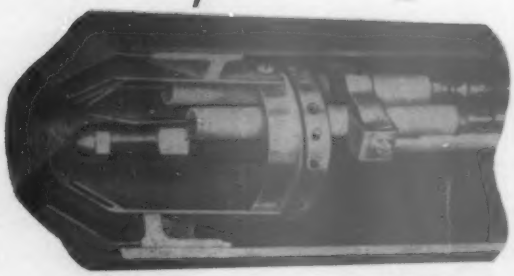
Let me give you just a couple of figures: From 1949 through 1956, an eight-year period, the net number of new oilheating customers averaged some 530,000 yearly. In the years 1957 and 1958 the new customers added were less than 300,000 in each year.

As you know, inroads by natural gas have been, until recently, heaviest in the new home market. Now, in addition, they are driving hard for the oilburner replacement market. Projections, based upon the last 10 years' experience in the replacement market, indicate that if we continue with our "do-nothing" attitude we will lose to other fuels in the next 10 years about 2,000,000 customers now burning oil.

The responsibility for the action required to do the over-all job rests mainly with many individuals sitting in this meeting.

Only ONE ... there's ONLY ONE Original

SHELL-DESIGNED Combustion Head



An outstanding contribution to Oil Heat. Field-tested through tens of thousands of installations operating at peak efficiencies!

Absolutely **NO** SMOKE SOOT

. . . highest CO_2!

The Shell Combustion Head does not Cost — it Pays!

The boiler you install is no better than its burner.

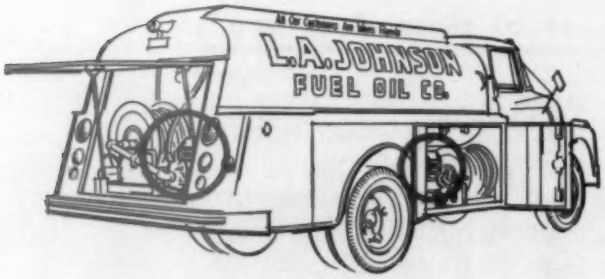
Available to Burner Manufacturers Only—

MODERN DIE & MACHINE CO. **Boston 25, Mass.**

Seven years, millions of retail gallons...

"never a truck meter out of service!"

Florida fuel oil dealer cites unfailing performance of A. O. Smith meters, credits them with helping serve 38% more customers per day with resultant cuts in cost per gallon delivered.



Johnson's home delivery fuel truck features dual meters — one for a line feeding out of the right side, one in rear for a left side line. Drivers can make deliveries from either side of the truck without turning around, backing up or entering driveways. Seventeen of the Company's trucks are equipped with dual meters.

Mr. L. A. Johnson of the L. A. Johnson Fuel Company, Orlando, Fla., says, "Millions of retail gallons have been accurately measured by our Smith meters and we have never had one truck out of service due to a meter break-down!"

Mr. Johnson also lauds the way A. O. Smith worked with his organization to come up with a twin metering system on their trucks (see diagram). "After 7 years' operation," he adds, "we've upped gallonage per truck ... cut delivery cost per gallon ... serve 38% more customers daily ... and reduced accident losses by 52%! Our dual service equipment has made single meter trucks as old fashioned as the horse-drawn oil truck!"

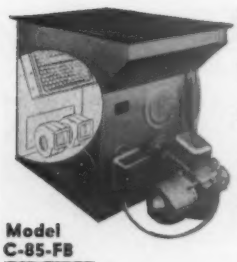
This case is typical of the way A. O. Smith works with its customers to develop ways and means to solve specific problems. Contact your representative or write direct.

Through research ... a better way

A.O.Smith
CORPORATION

Smith-Erie Division

Factories: 5715 Smithway St., Los Angeles 22, Calif.; Erie, Pa.
Offices: Atlanta 5, Ga.; Chicago 3, Ill.; Houston 2, Texas; Los Angeles 22, Calif.; New York 17, N. Y. Oakland 21, Calif.; Tulsa, Okla. Canada: Toronto 12, Vancouver 1.
A. O. Smith INTERNATIONAL S. A., Milwaukee 1, Wisconsin, U.S.A.



Model
C-85-FB
OIL-FIRED
85,000 Btu
Output

FLOOR FURNACE with a FILTER

ONLY G/A HAS THESE ADVANTAGES

- 30" HIGH . . . 16½" below joist.
- INSULATED JACKET
- CIRCULATED, FILTERED AIR
- QUIET OPERATION
- RETURN AIR OPENING . . . to facilitate a return-duct if used.
- EASY ACCESS for filter removal or furnace service from top.
- PRE-ASSEMBLED & WIRED

GENERAL AUTOMATIC PRODUCTS CORPORATION
2300 Sinclair Lane
Baltimore 13, Md.
EAstern 7-7703

Get the complete story . . . .
CALL, WRITE OR WIRE NOW:

Now Is The Time For

This 44 page booklet contains a series of articles by J. R. Lewis on the airconditioning market—the opportunities in cooling sales as they apply to the Oilheating dealer.

Order Your Copies Today

fueloil & Oil heat
2 West 45th St.
New York 36, N. Y.

ONLY $1.00 A COPY!

Can't talk about Prices?

(*Begins on page 59*)

and a half cents. Oh, me! How many gallons are we now going to have to sell to get our twenty-five thousand dollars? (Old man "diminishing returns" has now cocked the gun he has pointed at the back of our heads.) It must be 50% because it took 25% to offset the first half-cent we gave away. Or is it? Let's not kid ourselves, it's 67% and we now have to deliver 1,670,000 gallons to get the $25,000 we used to get on 1,000,000 gallons.

And now we had better take a look and see if we put enough money away out of the good old two and one-half cent days to buy another truck because our drivers say they can't deliver that additional 670,000 gallons without another truck and man. And we're also faced with the possibility of losing that good gal in the office because when she's working nights trying to keep up with the added billings, she's beginning to look with more favor on that swain who keeps saying, "Let me take you away from all this mad whirl and put you in the diaper washing business."

Also about this time we're going to have to decide who will get paid and who won't because everybody's not going to. Will it be the grocer who doesn't get paid? Nope, he sells for cash. Will it be the supplier? We can dream, can't we? Ah! The mortgage company. Let them take back the house. It's five years old and the faucet in the kitchen sink leaks and I'm sure we would be happier living with the wife's folks anyway.

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the ONLY Universal Transformer with U. L. Approval

Just Look at these Advantages:

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REVOLUTIONARY NEW CARRIER CLIMATE CENTER

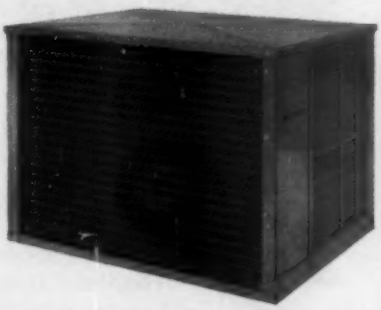
centralizes everything a homeowner needs to master indoor climate

When you stand in front of the new Carrier Climate Center, you know instantly why it gives the homeowner a new mastery of indoor climate.

Here you see every control and indicator needed to make a Carrier Weathermaker* home a new experience in all-season comfort, cleanliness and healthfulness. Now it is possible to control indoor climate with greater precision. To see and predict the outside weather. To know how the air conditioning system is operating, and to operate the system more economically.

The Carrier Climate Center permits all this mastery of climate from an 8 x 14 inch satin aluminum wall panel. It's so compact it mounts easily between studs in the den, hall, kitchen or bedroom. Yet, to duplicate its functions, you'd need an outside thermometer, a barometer, a relative humidity indicator, a de luxe thermostat, and a night setback control to lower the temperature automatically during sleeping hours.

You can now install this new kind of year-round air conditioning in any home, and at lower cost than you might think. When a 38E Weathermaker Outdoor Section (right) supplies the refrigeration to an indoor cooling coil, cooled air can be circulated by using the fan and ductwork of a warm air furnace. No water's needed, just outside air. In homes with wet heat, the Weathermaker Outdoor Section can be quickly connected to a separate indoor fan-coil unit with its own duct system.



This Carrier 38E Weathermaker Outdoor Section installs easily outside the house . . . in yard, breezeway, garage or patio.

GET ALL THE FACTS FROM YOUR CARRIER DISTRIBUTOR LISTED IN THE YELLOW PAGES. HE'LL SHOW YOU HOW A CARRIER FRANCHISE GIVES YOU A 1-2-3 PUNCH!

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BETTER AIR CONDITIONING FOR EVERYBODY *EVERYWHERE*

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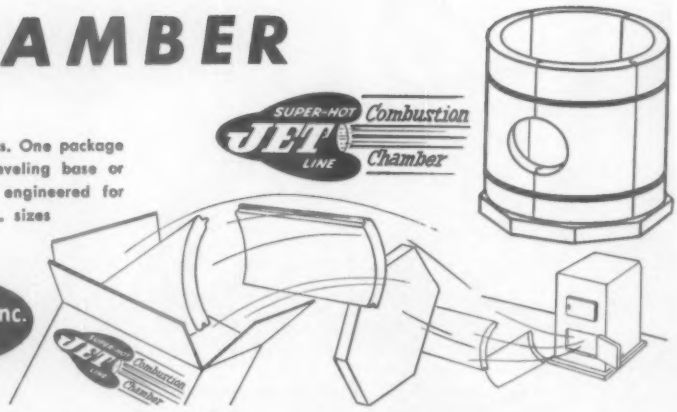

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Cooperative Cost Control

(*Begins on page 51*)

What about the other factors involved of which these figures are a reflection? Does distributor no. 2 have a smaller fleet? Does he have higher driver morale because of higher individual wages? Does he provide better service as well as secure greater efficiency through use of radio? Does he have greater overall efficiency because of the higher supervision ratio?

Can it possibly be unimportant to distributor no. 1 that he compare his costs on a line-by-line basis with distributor no. 2?

Bear in mind that we are not discussing the generalities relating to these problems. We are dealing with actual dollars spent and what those dollars bought for each of these distributors.

We are saying to distributor no. 1 that he should not dismiss such subjects with the wave of a hand, and we are saying to distributor no. 2 that these things he has inserted into his operating policies have apparently not cost him an expenditure of money without any return in efficiency.

Now let's talk about $8,000. This is an actual sum spent by an actual distributor. Are you interested in what you get for the expenditure of $8,000?

In a relatively small firm which combined service income & expense with installation income & expense we segregated under the uniform pro-

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ROUTE YOUR ACCOUNTING TOWARD MORE CUSTOMERS, BIGGER PROFITS

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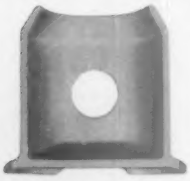

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cedure and found a gross loss of $8,000 from the sale of heating equipment after the application of the direct costs of merchandise and its installation, before sales or administrative overhead.

At this rate of gross loss on installations, the distributor is paying a fantastic sum for each new account he secures by this method. The same expenditure would pay for a good salesman who might bring in more accounts at less cost than the distributor is presently paying.

There is no comparision with another firm here, there is only analysis in a specific area in which the distributor was taking his costs for granted in large and unrecognizable lumps.

Such comparision and such disclosures might injure the pride of those who are shocked and offended by the evidence of their own costs, but the astute manager will profit by such experiences, so will his customers, and so will the industry.

Now let's examine the worth of such cost control as a cooperative industry measure in which developed costs and their related statistics are reported to a central gathering agency.

I can illustrate this use best by asking a few pertinent questions.

I will ask the independent first, "How do you go about convincing your individual supplier that you need a bigger spread?, and I will ask the supplier, "How do you presently determine if your dealers are in fact being squeezed by inadequate margins?"

I will ask the industry, "How do you explain to the general consuming public as a matter of public relations why increases in price are absolutely necessary when they occur?"

I will ask the industry, "What are you providing the Office of Civil & Defense Mobilization in their search for standards as to what constitutes a reasonable price increase in operating under import curbs?

I will ask the industry on the statistical level which is part of cost control to answer Chase Manhattan when they charge the industry in their April

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New Mosler Revo-File speeds handling and processing of your active cards, helps you offer the kind of service that keeps old customers and gains new ones.

Use this unique rotary file for your degree-day, service and customer cards. You'll cut reference time to 1½ seconds, store 5 times as many cards as other systems hold in the same space, reduce all finding locations to just one. The modern, desk high design of Revo-File lets clerks work comfortably seated, able to coordinate filing with other desk activities.

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- ☐ Degree Day Cards
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report with ". . . failure to head seasonal fluctuations in demand which play a vital role in determining the degree of profit-ability of industry operations."

I will ask the industry, "In this year 1959, can you determine and project, and bring to the attention of the public the effect of the probable increase in uncontrollable costs during this current period?

In this era of creeping inflation engendered by such uncontrollable cost increases, in an economic climate in which protected markets are being sought and pressure groups seeking political aid are multiplying, when is the industry going to wake up to the fact that its basic interest lies in one common market, and when will it become aware of the power and strength of unity?

You will find unity through communication. When you communicate it should be by way of incontestable fact. If you want incontestable facts deal with facts which are tied both by dollars and statistics to financial operating statements.

The machinery is available within the industry. In 1953 the API published a standard accounting manual for jobbers and dealers. The NOJC Accounting Committee has developed a uniform accounting system which is excellent. The OHI of Washington State has developed and has had substantial success over a period of years with a uniform accounting system for its members. The OHA of Maryland also has developed such a uniform system, is experiencing increased participation, and is securing the benefits of much valuable operating information for individual distributors and the marketing area.

It is only required that you establish such programs in each marketing area, and what is most important, that each of you individually lend your unqualified support by participating through your industry group.

❖

Robert F. Elliott named sales representative, national accounts, Taco Heaters, Inc., Cranston, R. I. He will make his headquarters at Taco's home office.

Harold E. Sweatt has been named eastern district manager, Metalbestos Division, William Wallace Co., Belmont, Calif. He was formerly company representative for the same area, and will now direct sales from the company's offices in Woodbridge, N. J. Sweatt joined the firm in 1956 following nine years with Minneapolis-Honeywell Regulator Co.

Stuart A. Smith has been named sales manager of furnaces, Perfection Industries, division of Hupp Corp., Cleveland. He was formerly sales vice president and a director of Waterman-Waterbury Co., Minneapolis, and has been active in the National Warm Air Heating and Air Conditioning Association and the Air Conditioning Wholesalers Association.

C. Clark Boylan is a recently-appointed field sales executive for Walbro Corp., Cass City, Mich., manufacturers of Autopulse fuel pumps. He will assist vice-president N. M. Hurry.

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Viking "gear-within-a-gear" pumps are adapted to the handling of fluids ranging from fuel oil to Bunker C.

This positive displacement pump has the unique and original Viking "gear-within-a-gear" design. A 48-year engineering background has developed it to the place where industry often depends on its pumping where others fail.

A size range from ⅔ to 1050 gallons per minute answers endless pumping problems.

Custom construction to fit the need is an every-day experience.

Types of metals include cast iron, a full range of bronzes, as well as stainless steel, nickel, monel, nodular iron, steel, ni-resist and other special metals.

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"Economies and profits from 14 extra calls per day actually pay the cost of our Motorola 2-way radio system!" — reports William F. Briggs, Jr., Service Manager, Valley Oil Co., Portland, Conn.

But Valley Oil's savings go even deeper . . . In addition to eliminating needless back-tracking, Motorola 2-way radio gets the service fleet on the road *earlier*. Servicemen no longer drive to the yard each morning for briefing. A quick call on the 2-way radio steers each one to his first assignment. When the job is done, he receives orders for the next call, via radio. It is quick and easy — and no need to use the customer's phone. How about you . . . do these facts suggest ways Motorola 2-way radio can boost your operation's efficiency? Write today for free fact-filled folder.

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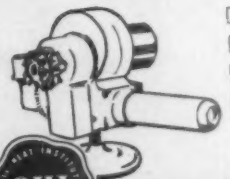

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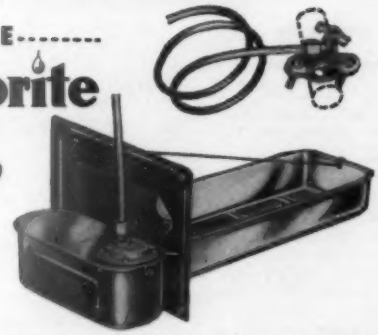

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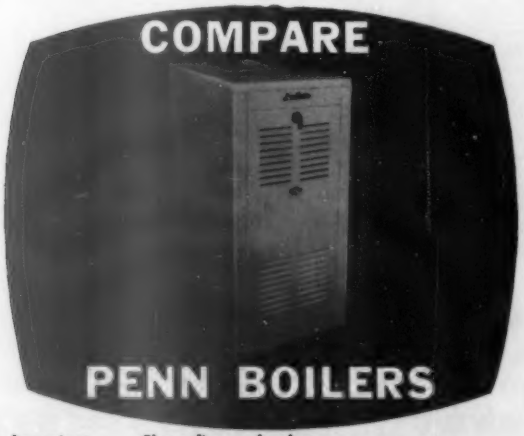

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In fact, many local codes now require a low water cut-off, or feeder cut-off combination, on hot water boilers installed in places of public occupancy—including multiple dwelling units.

Notice the diagrams of recommended installations opposite. For more detailed discussion get this booklet that tells the whole story: "Basic Safety Controls for Hot Water Space Heating Boilers."

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Write for Bulletin P-30C

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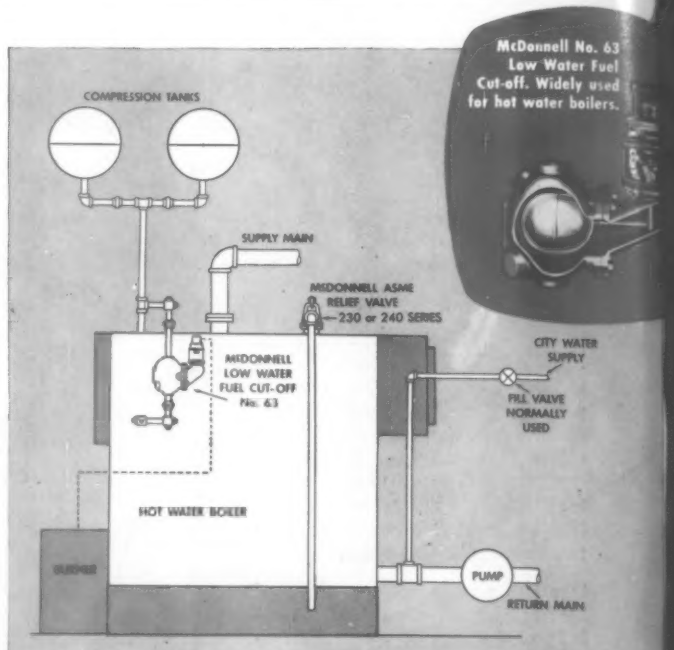
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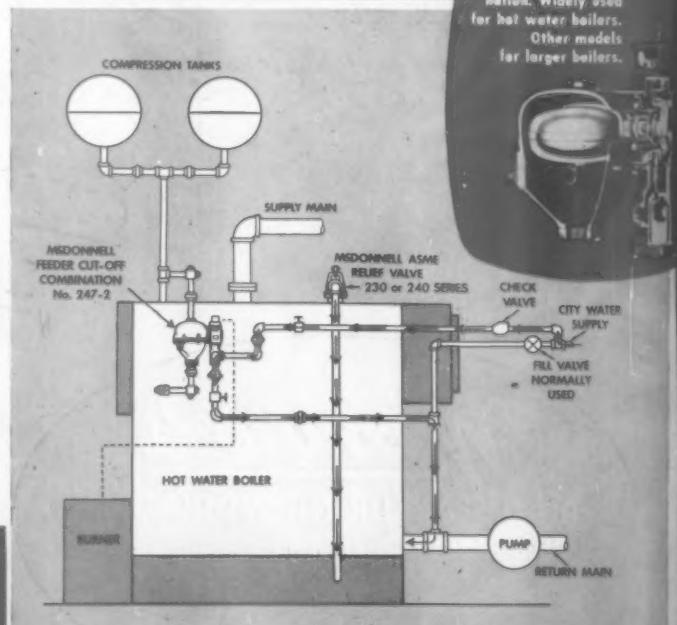
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